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DEVELOPING AND MAINTAINING STUDENT INTEREST IN LEARNING
THROUGH A STUDY OF THE SELECTION, COST, CONSTRUCTION,
AND CARE OF CLOTHING

by

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A thesis submitted to the Faculty of the Woman's
College of North Carolina in partial fulfillment
of the requirements for the degree of Master of
Science in the Department of Home Economics

Greensboro, N. C.

1941

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THELMA HAWKINS HARRILL. Developing and Maintaining Pupil Interest in Learning Through a Study of Selection, Cost, Construction, and Care of Clothing. (Under the direction of MABEL V. CAMPBELL.)

(Abstract)

Pupil behavior indicating a lack of interest in learning as observed in home economics classes was analyzed to find the causes of lack of interest. With these causes in mind, a survey was made of literature in home economics education to find suggestions for developing and maintaining interest in learning. Six of these suggestions were used by the writer in a study of the selection, cost, care, and construction of clothing. The study revealed that where there was pupil interest in learning already, it was maintained. Interest in learning was developed in other cases. But the writer feels that there are pupils who need competent guidance in finding, developing and enriching their interest.

ACKNOWLEDGMENTS

The writer wishes to express her gratitude to Miss Margaret M. Edwards who encouraged her constantly; to Miss Mabel V. Campbell who directed this thesis; and to the members of the Class in Problems in Home Economics Education who aided her by listing evidences and possible causes of lack of pupil interest in learning.

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CHAPTER I

INTRODUCTION

Experience in teaching home economics convinced the writer of the importance of finding means for developing and maintaining the interest of pupils in learning. That this need is generally recognized is evidenced in the literature in the field of home economics as well as general education. Pupil behavior as reported by experienced teachers¹ gives further evidence of the fact that pupils frequently show in home economics classes insufficient evidence of interest in learning. Typical comments are found in the following statements:

"My girls are not interested in learning to sew; all they want is a dress." "If my girls would make the dresses themselves they might learn something, but they slip them out, and their mammas finish them."

"How do you ever get enough food to serve a meal if you don't have a laboratory fee? My girls forget everything they are supposed to bring to school to cook." "How will they ever be interested in learning to cook without making such a mess?" "My girls want to cook things they already know how to cook. They are not interested in learning how to do anything a different way." "The questions the girls ask show so little thought and such a feeling of not being responsible."

"Do I have to rip this out? becomes almost a daily comment." "How do you want me to finish this sleeve seam?" "Do I really have to shrink

¹ Group of teachers enrolled in Class in Problems in Home Economics Education, Summer School 1939, Woman's College of the University of North Carolina.

this material?" "Is this design printed true with the grain?"

Because of the attitude such comments indicate the writer has attempted in this study to provide such activities as might be effective in developing the interest of a group of girls in learning. This was done with a group of forty-eight high school girls in the Seventy-first School, Fayetteville, North Carolina, through the activities centered around a unit in selection, cost, construction, and care of clothing.

CHAPTER II

REVIEW OF LITERATURE

"The general end of education in America at the present time is the fullest possible development of the individual within the framework of our present industrialized democratic society."¹ It is concerned with the "mastery of such knowledge, the acquisition of such attitudes, and the development of such habits"² that the learner will follow a socially desirable way of living. In order to attain this end, his curiosity should be encouraged to range over many fields, imparting to him the idea that education cannot be gained in a few years in school nor from just books, but that it is a life-time enterprise for which the schools should supply a good running start and that "what one knows is, in youth, of little moment. They know enough who know how to learn."³ He may thus be started on a career of life-long learning and find a sense of intellectual adventure and satisfaction in learning everything he can about the world with which he comes in contact.

Spafford says, "Learning is the heart of education."⁴ Once the objectives of education have been set up, one should be concerned that the pupil should learn the things necessary to attain them. The

¹ The Purpose of Education in American Democracy, Educational Policies Commission, Washington, D. C., 1938, p. 41.

² Ibid., p. 41.

³ Henry Adams, The Education of Henry Adams, An Autobiography, Houghton Mifflin Company, Boston, 1918, p. 314.

⁴ Ivol Spafford, Fundamentals in Teaching Home Economics, John Wiley and Sons, Inc., New York, 1935, p. 93.

attainment of these ends of education "must be observed in individual behavior or conduct"⁵ in life situations.

Our forefathers, in order to train children and fit them for life, established schools patterned after the most successful schools of Europe. But these schools had been established to train orators, statesmen, and men leading a public life.⁶ They trained only the male of the species. In answer to the desire and demand of the people the schools were made available to the masses. Girls and women were admitted to the schools; compulsory school laws were passed; exploitation of children by labor was prohibited. All these things were brought about in order that the individual "should be changed from an immature child with meager knowledge and power into a responsible citizen competent to deal forcefully with the intricacies of modern life."⁷

If, however, we accept the challenging statement of youth in regard to the cause of pupil failure and pupil drop-outs,⁸ we must admit

⁵ Educational Policies Commissions, loc. cit.

⁶ Charles H. Judd, The American Educational System, Houghton Mifflin Company, Boston, 1940.

⁷ John Dewey, Interest and Effort in Education, Houghton Mifflin Company, 1913, Introduction p. ix.

⁸ Gordon W. Lovejoy, Paths to Maturity, University of North Carolina, 1940, p. 54. In North Carolina 39.3 % of white boys and 28% white girls leave because they are tired of schools. While 40% white boys and 48% white girls left because "school did not teach desired subjects." Ninety-seven per cent of these who failed one grade; 3% of those who failed 2 grades and 4.8 % of those who failed 3 grades were estimated by the teachers as superior students.

that the schools have failed to meet their needs and interests.⁹

Dewey¹⁰ says that our schools have failed to provide the pupils with interesting and absorbing experiences. Activities have not been selected with reference to the child's interests, powers and capacities; and although he has stayed in school physically, his mind has wandered to more pleasant things. Many, considered backward or perverse, were merely bored by the unappealing tasks of school life. Because of this fact, too many have dropped out as soon as the law allowed. Many others within the compulsory attendance age are also retarded one, two or more grades. Too many of those who are able and willing of mind are only half absorbed with their school tasks;¹¹ and of those who graduate "too many are skillful merely in an outer show of information and manner which give no surety that the major part of their inner impulses are capable of rational and easy direction."¹² But if a sound appeal had been made to their active interests, these children would have been absorbed in the

⁹ Bell, Howard M., Youth Tell Their Story, American Council on Education, Washington, D. C., 1938, p. 67. The relatively high percentages of youth giving lack of interest as their cause for dropping out among both high school and elementary pupils indicates that all along the line the schools, as they are now set up, are adapted to neither the needs nor interests of large numbers of our young people.

¹⁰ Dewey, op. cit., p. vi-x.

¹¹ Gordon W. Lovejoy, Paths to Maturity, University of North Carolina, 1940, p. 54. Dewey's statement is shown to be true in North Carolina where the mean number of hours of home study each week for youths in high school is 5.2 for white boys and 7.4 for white girls.

¹² Dewey, loc. cit.

things to be learned and changes would have taken place in their character, knowledge, and skill. The problem, then, "is clearly one of adapting school programs to their interests and needs. Youngsters, like horses, can be led to water but only thirst will make them drink."¹³

The importance of employing student interests in learning situations is widely recognized and is expressed in various ways. The principle of self-activity, used by the progressives, holds that the child is dynamic and motile and learns through his own responses, interests, or feelings of such personal concern as to turn his whole attention upon an object. According to Aubrey Douglas, "the adjective 'dynamic' when applied to the human being, means that within the organism there exists a force which produces change and motion."¹⁴ This force brings one in contact with his environment and those environmental forces which "seem most likely to obtain for him his desire, attract, and engage the greatest energy and attention."¹⁵ They give him feelings of satisfaction and concern. "Learning and instruction find their origin in an individual's interests or purposes, and in the self-initiated driving force which results in them."¹⁶ Froebel had this in mind when he said that all education "commences with the instinctive, impulsive,

¹³ Bell, op. cit., p. 68.

¹⁴ Aubrey A. Douglas, The American School System, Farral and Rinehart, New York, 1934, p. 150.

¹⁵ Loc. cit.

¹⁶ Loc. cit.

nature of the child.¹⁷

Interest exerts a large influence in determining how effectively pupils learn. Parker calls it the "basis of economy in learning,"¹⁸ and, according to Mursel, "There can be no good and effective learning without interest--a pupil who is not interested is not being educated."¹⁹ Spafford²⁰ states that interest is not only fundamental or essential to learning but also makes learning easier and results in a unified activity.

But one does not get interest by thinking about it and consciously aiming at it as an end or method in itself. One gets interest by taking into account and providing such conditions as will compel it. This conception of interest as an activity which moves toward an end "developing as it proceeds thought of this end and search for means,"²¹ identifies the mind with an activity that "means something and in which the meaning counts as a factor in the development of the activity."²² If one can find a pupil's urgent needs and powers, and if one "can supply an environment of materials, appliances and resources--physical, social,

¹⁷ Douglas, loc. cit.

¹⁸ Samuel C. Parker, General Methods in Elementary School, Ginn and Company, New York, 1914, 1922, p. 199.

¹⁹ James L. Mursell, Principles of Education, First Edition, W. W. Norton & Company, Inc., 1934, p. 280.

²⁰ Spafford, op. cit., p. 50; 99; 107; 114; 124.

²¹ Dewey, op. cit., p. 92.

²² Loc. cit.

and intellectual"²³--to which these needs respond, there will be no need to think about interest. "It will take care of itself. For mind will have met with what it needs in order to be mind."²⁴ When educators, teachers, parents, the state provide an environment that induces developing activities, the one thing needful in education will be secured.²⁵

Parker²⁶ says that interest is assured by an appeal to such natural instincts as desire for social approval; rhythm, rhyme, jingle and song; wonder; puzzle interest and mental activity; in expression and communication, manipulation and general physical activity; collecting; imitation; and interest in games; love of adventure; and curiosity about people and animals. Dewey²⁷ says that the teacher must see the relation of the fact to be taught or the skill to be developed to one of these natural instincts and so present the activity that the pupil feels it vitally affects him and can be used outside the school room. Then all his energies will be employed in its accomplishment. And because he feels the need for engaging in the particular activity, he acquires the desired ability to deal with problems as they arise. On the other hand if the thing to be taught does not appeal to the pupil's natural interests,

²³Ibid., p. 95.

²⁴Loc. cit.

²⁵Loc. cit.

²⁶Parker, op. cit.

²⁷Dewey, op. cit., p. vi-vii.

he may externally be occupied by performing a certain act and be able to produce the right answer when called upon by the teacher, but he is really engaged in acquiring the habit of divided attention and of mind wandering.

At the same time he may be getting an aversion for the task required. For whether a teacher recognizes it or not, every class period helps to develop pupil attitudes which are apt to be more powerful in determining future learnings, attitudes, and ideals than the subject matter taught. For this reason modern educators are more concerned with the emotional attitudes aroused than with the knowledge acquired.²⁸

Margaret and John Norton have spoken thus of the matter:

One cannot avoid developing attitudes, however, by ignoring them. They intrude themselves in education regardless and are often made dynamic by emotion. Since this is true, it seems to be the better part of wisdom to strive consciously to create attitudes which are individually and socially desirable.²⁹

Since these emotionalized attitudes become an integrated part of a pupil's habits and knowledge the teacher should guide the pupil in a wide variety of situations that provide successful achievement, mastery and feelings of accomplishment which give pleasure from outgoing energy. John Dewey³⁰ says this type of pleasure has no separate existence from the activity in which it is absorbed. It is the type

²⁸ Clara M. Brown and Alice H. Haley, The Teaching of Home Economics, Houghton Mifflin Company, Boston, 1928, p. 16.

²⁹ John K. Norton and Margaret A. Norton, Foundations of Curriculum Building, Gin and Company, New York, 1936, p. 49.

³⁰ Dewey, op. cit., p. 12.

of pleasure found in legitimate interest, and its source lies in meeting the needs of the organism.

A second type of pleasure, he says, arises from external stimulation. "It marks receptivity. It exists by itself as a pleasure, not as the pleasure of activity. Being merely excited by some external stimulus, it is not a quality of an act in which an external object is constructively dealt with."³¹ This is the type of pleasure achieved when "objects are made interesting" and is used to cover the gap between self and something not in itself having interest.³² A habitual division of activities results. "Externally we have mechanical habits with no mental end or value. Internally we have--a sequence of ideas with no end at all, because they are not brought to a focus in action."³³ This excitement of sense organs to give pleasure, results in strain on one side and listlessness on the other. Such children depend upon external suggestion and lack resources when left to themselves.³⁴

Many methods have been used for obtaining the extrinsic interest of pupils in learning. Among them are the promises of punishment, bribes, affection, promotion, ability to make money, or to take positions in society, of the disapproval of someone held high in esteem. Other notable stimuli are sarcasm from the teacher, and pupil competition. But, at present, about the most powerful stimulus is our grading system,

³¹ Dewey, loc. cit.

³² Ibid., p. 13.

³³ Ibid., p. 14.

³⁴ Ibid., p. 13.

which Mursell blames for being one of our greatest drawbacks to real interest in learning. It began as an administrative and bookkeeping device, but

from this small seed it has grown into a large and healthy Upas tree. And it is now by far the most important single device in our American school for putting a drive behind study. But it organizes the dynamic of learning in the wrong way. A potent drive is indeed developed. But it is not in the will to learn. And hence it is not truly educative. It offers a standing temptation for students to think far more of the credit record they will obtain than of anything else in a course of study.³⁵

Since the impulse to work is determined by something outside itself, the tendency is to work for the external reward rather than for the growth in skill, knowledge or insight. The evils resulting from working for grades make some of the worst problems we have to deal with.

In the first place, such work does not tend to produce effective learning. "There is in all schools, a tacit but ironclad agreement that the majority of students must receive passing marks. Any school which operated on a contrary policy would simply go out of business."³⁶ So even where the general standards are high, this makes it possible for pupils to meet requirements without very thorough learning, or the definite establishment of competent masteries. Nor do they find anything in our credit system, to make them dissatisfied with this state of affairs. Rather it intimates to the average student that, "if he

³⁵ Mursell, op. cit., p. 282.

³⁶ Ibid., p. 283.

doesn't do too badly, he will obtain his reward."³⁷ And the teacher knowing that her job depends upon giving passing marks to the majority of her students part of whom are retarded, part accelerated, and part of whom are an age expected to be in that particular grade, sets a standard in keeping with the work done by the poorest pupils in the class. And a pupil in a class with others who do so little, and who constantly comes in contact with the idea of seeing how much can be gotten for nothing, so long as he is working for grades, does just enough to get by.

For first rate, ambitious pupils, the effect is equally bad. For, so long as he works for grades, he is sure to use much of his ingenuity in trying to please the teacher. And since a competitive standard of excellence is set before him, he is encouraged to do, "not as well as he can, but well enough to get an "A," which merely means better than most."³⁸

May this not explain the comment of the seventeen year old boy who said, "Modern high school is too easy. A person may pass with little effort--if any. This has tended to make me slightly lazy."³⁹

But if the pupil had a direct interest in learning in a situation in which there is no question of passing or otherwise, the effect would

³⁷ Mursell, loc. cit.

³⁸ Loc. cit.

³⁹ Lovejoy, op. cit., p. 55.

be different. "We have this, for instance, on a golf course. There the question is not, 'can I manage to make a C?' but, 'Can I go round in bogey or better?' We may remain satisfied with mediocrity still. But we do not mistake it for excellence."⁴⁰

The personal attitudes which extrinsic motivation tends to produce in pupils should also be considered. Mursell asks:

When a student cheats on examination, or copies somebody else's collateral notes, can we absolve the system of all blame? Why was the examination, or this notebook so important? Certainly not for its own sake, or because the pupil recognized a personal benefit in doing well. If the learning itself had been the chief thing, cheating would have been utterly out of the picture. Try to drive a golf ball two hundred and fifty yards by cheating."⁴¹

If "learning itself is at the center of things, cheating loses its whole point."⁴²

Then there is the pupil who tries to coax a teacher into giving him a better grade. "If you are being coached by a golf professional, it does not," says Mursell, "enter your head to try to conciliate the man in the hope that he will give you a B instead of a C--because no extrinsic motivation is involved. Better golf, not a record on a registrar's books, is your reward."⁴³ Your attitude is quite different from that of a pupil in school who treats his teacher as a "fountain

⁴⁰ Mursell, loc. cit.

⁴¹ Ibid., p. 284.

⁴² Loc. cit.

⁴³ Loc. cit.

of credits."⁴⁴

Since, in home economics as in other fields, a major problem met by the teacher becomes that of finding means of securing and holding interest of pupils in learning, my problem has been to attempt to find and use methods designed to maintain interest of students in learning in the area of clothing.

⁴⁴ Mursell, Loc. cit.

CHAPTER III

THE PROBLEM STUDIED

In this study, the purpose of which was to find more effective means than had been previously used by the writer of developing the interest of a group of high school girls in learning how to select, construct, and care for clothing, analysis was made of the behavior of pupils in order to discover the causes of lack of interest in learning; literature in the field of general and home economics education was examined in an effort to find suggestions as to means of stimulating interest in learning; and a teaching program designed to stimulate increased interest in learning was planned, carried out, and evaluated.

Analysis of pupil behavior. On the basis of the writer's experience, the experience of a group of teachers,¹ and a review of literature, the writer compiled the evidences frequently reported which indicate a lack of interest in learning, as revealed in home economics classes. The analysis of these experiences suggests that pupils may

1. be more interested in getting a product than in learning;
2. be satisfied with present standards;
3. prefer to depend on others rather than self; may resist self-education;
4. be too well satisfied with doing mere manipulative processes;

¹ Teachers enrolled in a class in Problems in Home Economics Education, Summer School, 1939, Woman's College of the University of North Carolina, Greensboro, N. C.

5. not really consider it important that she cooperate in the achievement of the objectives;
6. be content to waste time and to interfere with use of time by others;
7. feel little responsibility for carrying instruction over into everyday life.

In the following outline these evidences of pupil behavior which indicate lack of interest in learning in clothing units have been classified:

I. Pupil is more interested in the product than in learning.

- A. The urge to complete the garment for a particular occasion results in poor workmanship, dependence on teacher, having others do the work for her.
- B. The desire for a particular product results in selection of a problem for school or home project that is either too simple or too difficult for the learner.
- C. Collection of quantities of illustrative materials--pictures, clippings, fabrics, is substituted for a critical analysis of carefully selected materials.

II. Pupil is satisfied with present standard.

- A. She resists changing standards.
 1. She makes little effort to note differences in standards.
 2. She is unable or unwilling to see that a different standard might be better in a given case.
- B. She cannot be bothered to try to achieve a better standard if the doing of it requires time or effort in:

1. Hunting up information as to standards, techniques, or any type of subject matter. She is content to go to inferior sources of material.
 2. Careful planning, in use of material (grain, design, waste), or sequence of work.
 3. The development of techniques in selection, analysis of steps, or practice to develop skill.
- C. Her desire for achievement seems to be merely to do enough to pass the course; well enough that she does not have to do task over.
- D. She cannot be bothered to maintain high standards of cleanliness and order in her work space.
- III. Pupil prefers to depend on others rather than herself. She resists self-education.
- A. Depends upon the teacher for an excessive amount of guidance in making decisions as to what to do and how to do every task.
- B. Refuses to go to source material--wants not only to be told, but to be shown how to proceed, and wants such close supervision that she cannot make a mistake.
- C. Prefers that all teaching be of the lecture type rather than through problems.
- D. May cheat.
- IV. Pupil too well satisfied with doing mere manipulative processes.
- A. When there is an opportunity for choice always selects routine jobs and errands.
- B. Puts aside regular duties to do routine.
- C. Seeks assignment to routine tasks in order to be excused from

assignments made by teachers.

V. She does not really consider it important that she cooperate in the achievement of the objectives.

A. Fails to carry responsibility for provision, care, and use of materials--she is inclined to put blame for failure to provide materials promptly upon the home situation.

B. Does not carry her share of responsibility in group planning.

VI. Pupil wastes time.

A. Doesn't want to take time to make plans that will lead to more effective use of time.

B. Always finding excuses for leaving class and study hall.

VII. Pupil feels little responsibility for carrying instruction over into every day living.

A. Always finds reason why teacher should not visit home.

B. Always finds reasons why she cannot do certain project.

C. Doesn't bring problems from home for solution.

D. Is unwilling to plan project so that it will be really worthwhile.

Further analysis of the experiences of the writer and other teachers was made in an effort to discover the possible causes of student behavior which indicates lack of interest. These were classified as follows:

I. Pupil is more interested in the product than in learning.

A. She does not know what learnings she might achieve through specific activities, because

1. The objectives have not been set up.

2. The objectives as set up may not include growth in ability

or desire to learn.

3. She did not participate in setting them up.
4. She has more important objectives; hence, does not accept those set up by the class.
5. She does not know where she stands; or
6. She has not set up for herself standards of workmanship which she hopes to achieve.

B. She has little interest in the activities, because

1. She is doing it only because she needs the product.
2. She needs a grade which she may earn only through making the product.

C. The activity is not suited to her because

1. It is too difficult.
2. The time required is longer than her span of interest.
3. She lacks confidence in her ability to do it.
4. It is not built on her past experience, and she has not been led to see its connection with her immediate interest.

II. Pupil is satisfied with present standards.

A. She does not really know what standard she should attempt to achieve, because

1. She was permitted to begin a productive job before she recognized difference in standards.
2. She has not had an opportunity to or has not formed the habit of noting differences in techniques, quality, color and design of fabrics; clothing suited to the individual or the occasion; methods of study; order and cleanliness of surroundings.
3. The school situation does not provide sufficient materials or sufficient opportunity to use them to help her learn to see the difference in standards, or to feel that she can achieve them.
4. Sufficient effort has not been made to stimulate her curiosity.

- B. Past experience has shown her that she does not have to do much reading, or make much change in her standards of workmanship in order to achieve a grade.

III. Pupil prefers to depend on others rather than herself; she resists self-education.

- A. She has not been taught to think for herself because

1. The teacher may have encouraged dependence upon herself or teacher may have set herself up as an authority.
2. The teacher is more skillful in showing her how to do a job than she is in developing her ability to teach herself.

- B. She has not had sufficient satisfaction from her efforts at self-education, because

1. Too much time was wasted. The assignments were either too definite or too indefinite; adequate sources of information were not easily available; or she knew she just could not be interested long enough to complete it; so why try?
2. Experience has taught her that she cannot do what teacher expects of her.

- C. Mere learning what teacher says in lecture requires so much less effort than really solving problems.

IV. Pupil too well content with mere manipulative activities, because

- A. She is not surrounded with materials, equipment, and resources-- physical, social, and intellectual to which her instincts respond.
- B. Her curiosity as to what she might learn through materials provided has not been aroused.

V. Pupil does not really consider it important that she cooperate in the achievement of the selected objectives.

A. She has not had sufficient satisfaction from previous attempts to justify her effort at cooperation. She has been conscious of wasted effort.

1. She could go much faster alone than by waiting for other members of the class to plan.
2. She could not get equipment when she wanted it if she did not take it in the beginning.
3. The learnings required were not on a level with her ability--either too easy or too hard.
4. She did not recognize the causes for differences in standards; therefore, folding patterns or materials and storing supplies seemed to take too much time.

B. The encouragement received from home often does not stimulate effort to achieve selected objectives.

1. They want "a dress and want it now."
2. They lack confidence in the pupil's ability; hence do not permit her to have needed experience in planning, in selecting materials, in buying, in cutting, or in constructing garments.

C. She has not had sufficient experience to help her understand that her own progress will be greater when she cooperates with the group in accepting group versus individual teaching, in unselfish use of supplies and equipment, in doing her share of group activities promptly.

VI. Pupil may be well content to waste time and to interfere with use of time of others, because

A. She feels the need of being the center of interest--and she can in this way, at least, get teacher's and sometimes pupils' attention.

B. School activities do not cover a range wide enough to include her interest at home, on the street, or in school subjects in which she is already interested such as mathematics, history, civics, art (drawing), science, music.

C. The activities have not appealed to her as special privileges.

VII. Pupil feels little responsibility for carrying instructions over into everyday life.

A. She cannot use it because

1. The standards set up are impossible in her home because of lack of money, time, and energy.
2. The learnings that have been attempted do not touch the personal or family needs as the family see them.

B. Home practice and home projects become insurmountable tasks because

1. Of the effort required in making plans and reports.
2. Of the disapproval of the family for the teacher's visiting in the home.

Suggestions for stimulating interest in learning. The suggestions made by many authorities in the home economics field, as to possible methods of stimulating the interest of pupils in learning, are summarized as follows:

Since man is dynamic and is seeking outlet for his energy as well as responding to the stimuli of his environment and since he thinks, acts, and feels as a total being, needed learnings are not acquired separately.

They come as a result of understood relationships.² One feels with

² Spafford, op. cit., p. 21, 22, 98.

the sense of touch, and at the same time one feels emotionally, recognizes relationship and similarities to other experience.³ Hence, it is necessary that the pupil see the problem as a whole so that she may understand the activities involved in its solution and want to perform them. Small problems, indifferent or repulsive in themselves, become interesting because of their relationship to the desired accomplishment. It follows that a pupil with a garment to make will be much more interested in learning the construction of seams and stitches to be used in the garment than if she is practicing seams and stitches as an end in themselves.⁴

Interest is obtained by allowing the pupil to participate in setting up the objectives and activities of the group. The teacher should decide upon tentative objectives she thinks are suitable for the pupils she is to teach. They should serve as a background for guiding the pupils themselves in setting up objectives for the year. The objectives must be clear and definite but not so limited in scope that they encourage piecemeal learning.⁵ They should be stated in terms of activities and pupil growth. The pupil should see the relation of the activities

³ Maude Williamson and Mary Steward Lyle, Homemaking Education in the High School, Revised Edition, D. Appleton-Century Company, New York, 1934, 1941, p. 138.

⁴ Clara M. Brown and Alice H. Haley, The Teaching of Home Economics, Houghton Mifflin Company, Boston, 1928, p. 40.

⁵ Williamson-Lyle, Homemaking Education, pp. 80-86.

to the whole problem which is definitely related to her natural interest. If such a list is presented to her so that she can check the activities she has already accomplished and select the ones that she feels will develop her own abilities, attitudes, and capacities, she will feel that she has had a part in setting up the objectives of the unit and will have a personal interest in attaining them.

The pupil who has actively helped plan her goal sees the importance of what she is doing. She is concerned with her progress in a worthwhile direction.⁶ The list of activities and objectives used as a progress chart against which she may check her achievements may be very stimulating. Learning will take place more rapidly because the pupil sees where she is going in relation to where she wants to go. The list should also be used as a means of pupil evaluation. Results should be analyzed thoughtfully because the pupil can know how to improve only when she sees wherein she has failed.

The teacher should encourage personal pride in the pupil's ability to teach herself; in the acceptance and accomplishment of high standards of techniques; in the pupil's ability to do things; and in the order and cleanliness of working space so that the pupil will accept these objectives as a part of her development.

In order to enlist the interest of the pupil in the activities through which the desired objectives are achieved, allow her to select

⁶ Hester Chadderdon, Measurement in Home Economics Education, Practical Home Economics, Vol. XIII (October, 1935), p. 289.

those related to her past experience. She should attempt only what she feels she can accomplish. She should feel that what she does is worthwhile in developing her skills and abilities and in satisfying her immediate needs and will help her in the achievement of a larger purpose. She must also feel that the product of the activity itself is of immediate interest to her.⁷

If the pupil is to develop into a person competent of planning activities and carrying them out, she must have practice at school. Class planning of problems should lead to pupil planning of her own problem. She should be guided to think through a problem that is small enough that she is aware of the steps in its development and can determine what should influence her decisions. If the pupil sees the problem as a whole in relation to the objectives, she should be able to make a plan of work. She must know what help she needs, where to get it, and how to judge its reliability. She must be provided with enough information to enable her to plan the steps in the solution and make the best judgments as to their sequence. The plan should include the standards of workmanship to be achieved, the sequence of steps, and the length of time she will spend on it. Such planning places the responsibility on the pupil. It helps the pupil know what she is going to do and how she is going to do it. Consequently she will be less likely to work blindly and ineffectively or to waste time purposely. In addition she will have a chance to use her initiative and to use the teacher only as a

⁷ Williamson-Lyle, op. cit., and Spafford, op. cit., p. 147; 162;

guide.⁸

A visit to the home helps the teacher to understand the background of the pupil and to interpret her interest and behavior. The teacher has a chance to learn the needs of the girl, the things she is interested in at home, and how much responsibility she assumes there. A talk with her parents may disclose real interests and desires of the pupil which the teacher never suspected. The interests thus found may be developed and enriched.

During the visit the teacher has an opportunity to talk over her plans with the pupil's mother and to get suggestions for making the subject matter worthwhile. If the mother agrees with the objectives and thinks the activities meet real needs, she will want to provide the necessary materials. She will, also, encourage the pupil in home activities and will help the pupil to plan for activities which she can carry out. If the family feels that the teacher is a co-worker, she will be welcomed in the home.

If the teacher cannot visit the homes of the pupils, she should become acquainted with the parents in other ways and plan with them so that cooperation between school and home is promoted.⁹

Worthwhile source materials, easily available and thoroughly explained, are invaluable helps to the pupil who learns by seeing and holding things in her hands. Source materials should include different qualities of textile fabrics and different standards of workmanship in

⁸ Williamson-Lyle, op. cit., pp. 160-162; Spafford, op. cit., p.147.

⁹ Williamson-Lyle, op. cit., pp. 121-130.

both old and new garments; and step by step construction processes. Such source materials tend to stimulate the interest of all pupils to find and understand the cause and effects of these differences in standards of quality and techniques. The pupil should be encouraged to question why certain methods are better than others. She should understand the answers so that she can learn to think for herself and use the information gained in other similar situations. The source materials should be on a level with the pupil's understanding and should be presented to her in such a way that her curiosity is aroused to see how she may use them to benefit herself. They should be planned for and made available in advance and should include helps related to each course objective.¹⁰

If a pupil develops the habit of teaching herself, she must know where to find source materials and how to use them. She should be taught to recognize basic principles, rather than to follow directions exactly, so she will be able to determine when to use one process rather than another. Learning to analyze will also help her to determine what she should avoid as well as the sequence of steps on any process. Styles and textile fabrics may change, but the requirement of the basic construction processes will remain the same; for example, seams will be expected to hold cloth together, to be inconspicuous, to be comfortable, and to contribute to styling.¹¹

¹⁰ Brown-Haley, op. cit., p. 328; Spafford, op. cit., pp. 52; 223; 256-270.

¹¹ Spafford, op. cit., p. 99.

Confidence in one's ability to make progress is essential to the growth of the individual. Each child should, therefore, select a problem on a level with her native ability, acquired skills, and knowledge. No problem should be so hard that a pupil is defeated before she begins it, nor so easy that it does not stimulate her to a worthwhile use of her energy and powers. Girls having similar abilities should work together so that the opportunity to learn will be more nearly equal. Then no girl who already knows how can dominate the group. Such an arrangement helps establish the importance of learning as a means to a desired goal and keeps the pupils happy even though their present product is not as good as that of another group.¹²

In order to bring out a pupil's best efforts, the teachers should show interest in her achievements by mentioning the things the pupil has done well, and giving suggestions for improvement. She should foresee danger and give prompt guidance in anticipated difficulties by directing the pupil to help herself through the use of source materials. But actual help should be given when it is really needed.

The pupil should also be guided to use charts, samples, or garments, to evaluate her own product in order to discover the weak points which should be improved.¹³

The teacher should tie work in with problems in other fields in which the pupil is already interested. The broader the scope of these

¹² Ibid., p. 180.

¹³ Spafford, op. cit.; Williamson-Lyle, op. cit.; Brown Haley, op. cit.

attempts, the greater the chance that the pupil will develop a real interest that will lead on to further independent learnings.

The contacts of high school girls have broadened their interests. No other subject in school draws its material from as many fields as does home economics. One may draw on a girl's interest in art, mathematics, history, sociology, civics, psychology, natural science, or geography to motivate her interest in a study of textiles or clothing as it relates to any one of these various fields. The study of clothing can make use of the adolescent's interest in society and her desire for service (through helping with the construction of garment for relief in community or in war-torn countries) and direct her interest and energies toward attainable goals instead of wasting them in futile effort and day dreaming. The pupil who desires to be grown up may be guided to accept really grown-up standards of behavior in lieu of showing off. The clothing study offers an appeal to a wide range of individual interests and adds many new ones, whose development will be life-savers to the girl who will stay at home.¹⁴

The girl who is interested in getting a job may be especially concerned about how to be appropriately and attractively dressed and how to make a good personal appearance on the income she expects to make. This study may lead to a more direct interest in the family income to see if it could be spent more wisely to raise the general level of family living.¹⁵

¹⁴ Ibid., p. 42; pp. 94-98.

¹⁵ Mary Inez Mann, Textile and Clothing Program and Present Day Clothing Problems at High School Level; Journal of Home Economics, Vol. XXI (October, 1939), p. 561.

By associating the clothing work in some way with whatever interest the pupil may already have, the pupil may be guided to feel "that the mere possession of things does not bring the joy of complete living, but that only as everyday experiences become rich in meaning and in association can one know the joy of abundant living."¹⁶

The pupil intensely interested in any problem will be motivated to go to source materials for information. There will be no time for routine activities, for useless errands or dawdling.

In order to prevent the study from becoming so broad that it has no depth, occasionally discard irrelevant materials and summarize all matter directly related to the study of clothing. Call attention also to what has been accomplished, to what questions were answered and to what gaps in learning should be covered in further study.¹⁷

The teaching program. The teaching program designed to increase interest in learning was planned and carried out with two groups of girls who were studying the selection, cost, construction, and care of clothing.

One group included twenty-six ninth grade girls taking Second-Year Home Economics. The study covered a period of sixteen weeks divided between fall and spring.

The second group contributed to the study while they were in the eighth and ninth grades. The class was composed of twenty-two girls in

¹⁶ Elizabeth Dyer, Home Economics as an Integrating Force in Education, Journal of Home Economics, Vol. XXI (July, 1929), p. 486.

¹⁷ Spafford, op. cit., p. 147.

the eighth grade. Their behavior in regard to activities in the study of clothing was observed over a period of eight weeks. Nineteen of the same girls, while in the ninth grade, were observed during twenty weeks divided between fall and spring activities in clothing. This program included:

1. A program of work based on past experience with high school girls, which was used as a background for pupil participation in setting up objectives and activities for the study of the selection, cost, care, and construction of clothing. This was accomplished in two ways:
 - a. Objectives were stated in terms of activities relating directly to the selection, cost, care, and construction of clothing, classified under the following headings: operation and use of the sewing machine, fabrics, pattern selection, and use, construction processes, planning clothing needs, marketing needs, and care of clothing. (This was also used as a progress chart)
 - b. Objectives related primarily to the pupils' development as persons. These were worked out on the basis of good citizenship and included behavior designed to bring about better laboratory practices and a more mature way of thinking and acting, consideration of others, responsibility, openmindedness, initiative, self-control, cooperation or sharing responsibility of group.
2. A progress chart¹⁸ against which the pupil checked the things she

¹⁸ A copy of the progress chart is found in Appendix A.

she wished to learn, evaluated and rated her activities, and kept informed as to where she was in relation to the goal she set up.

3. Source material pertinent to the subject matter studied.
4. A discussion with the pupils of what they were to be graded on so that they would know that it was progress in developing skills and abilities rather than the product.
5. Contacting the parents of as many pupils as possible so that they would understand what was being done and feel an interest in cooperating with the program.

Only two types of pupil behavior listed on page 21 which seem to indicate lack of interest in learning were used as a basis for this study. These are:

1. The pupil is more interested in getting a product than in learning.
2. The pupil is satisfied with present standards.

Findings. Evidences of growth in interest were recorded in terms of pupil behavior. The following were the types of behavior watched for: inquiry, responsibility, openmindedness, work habits, initiative, self-appraisal, resourcefulness, contributions to class work as a result of teacher's suggestion, voluntary contributions, effort in developing skill, and self-control.¹⁹

An analysis of the progress charts and anecdotal records shows the activities and behavior of the pupils in the two groups.

The progress chart was given to the first group of girls at the

¹⁹ The device used for taking anecdotal records is found in Appendix B.

beginning of the clothing unit, and other activities were added by the pupils. These activities included making a book of construction stitches and processes; studying how to buy ready-made clothing and household linens; learning to pink seams; and making, for one pupil, a plaited skirt with an invisible placket.

The second group observed garments and samples of construction processes to discover the differences in style, construction, quality of fabrics used, workmanship, and general appearance as well as the possible causes of these differences. From these observations, a list of the things the pupils wished to learn was put on the blackboard, and the pupils helped to set up the objectives of the study and made plans for their activities. These activities were listed in the teacher's record book. As a pupil completed an activity, she and the teacher together selected the learning experience on which she needed to concentrate.

In the beginning five girls in the first group did not want to read the literature suggested for analyzing the different types of figures and the ways of emphasizing one's good features and minimizing less desirable ones. But the books had such interesting pictures and the girls who reported on their readings sounded so convincing about the value of the references that everyone read them. After studying the literature, every girl analyzed her figure and selected a pattern that met her needs.

Several plans of work based on construction problems the class had studied were worked out on the board before anyone would attempt

a plan of her own. One girl finally tried working by her own plan. The class as a whole did not want to make a plan of work because they had never done it. Two other girls made plans. The resulting remark-- "It certainly pays to know what you are going to do before you start"-- caused several other girls to make step by step plans as had been suggested. Because planning made the processes clear in their own minds, made it possible to go ahead without consulting anyone else, and saved time in accomplishing the simpler things, they decided that planning was better than just following the pattern.

Twenty-one of the twenty-six girls made the samples of construction stitches and of construction processes which the class insisted that they wanted to make. But three of the girls who did most of the talking, one of whom initiated the idea, when the problem was accepted, were the ones to give up the task. They were the only ones who did not make samples for a scrap book, as they had planned.

Much interest was shown by the other girls, however, in making the scrap books until the time came for adding the plackets. Several girls had devised means of eliminating the plackets from their garments, but they said that they wanted to make them for the scrap book. One girl was not conscious of the differences in standards shown by the plackets in the source materials, and her work did not measure up to the requirements. She decided that different standards should not be included in the source materials. She advised the girls in the second group to be sure they wanted to do everything they checked on the progress chart and not to increase their work by adding other processes.

Every girl who made a step by step plan of work for the plackets, and understood exactly what she was going to do, found plackets much easier than she had anticipated. Two of them said they were sorry they had not made sample plackets before they made their dresses. They had been afraid to try them, believing that the construction was too difficult, and required too much time. As soon as confidence in their ability to make plackets was gained, the other girls tried them with fairly good results.

The second group of girls did not follow the tentative plan of activities the writer had made. They asked to make doll dresses for Christmas presents and to make a scrap book of construction stitches and simple embroidery stitches. Half of them began their problems with a plan of work. By the end of the second year only five girls were using the pattern guide without a plan of work.

This class had a mind set against working buttonholes. The writer worked buttonholes in a dress one day during activity period. The comment was made: "I didn't know anybody worked buttonholes when didn't have to. It doesn't seem to take so long to make them." Some of the girls compared the time taken in sewing on snap fasteners with that taken in making buttonholes, and found that it was about the same. Only two girls sewed snap fasteners down the pinafores used for cooking-uniforms. They decided that in certain cases buttons and buttonholes were more satisfactory than snap fasteners.

The source materials were invaluable as an aid in securing interest in learning. The new books on clothing had such interesting

pictures that everyone wanted to look at them, then wanted to read them. Occasionally a pupil would complain that she had not been able to get a certain book. They were read by girls who definitely declared in the beginning that they did not want to read.

Certain step-by-step processes were used by many of the girls to teach themselves. Some of the pupils, however, needed more than the illustrations. Each time they tried a process or used the step-by-step illustrative material, they needed a discussion of what to avoid, what should be done first and how to go about each step in getting the product. A few of the pupils had to be started off with the first construction problems, but they soon reached the stage where they could use the illustrative materials, and after discussing them, were able to follow the process without any more help. One girl, however, could not put in a zipper until the teacher stood by her and told her exactly what to do; how to do it; and when to stitch.

Great interest was shown in the use of pinking shears, the hem marker, the hinge presser foot, and the zipper presser foot. There was no difficulty in developing an interest in the use of this equipment because it was a new experience for most of them and they realized the amount of time that was saved.

At the beginning of the study of clothing, a number of dresses were borrowed from the stores. They were selected from groups of dresses at different levels of cost, and showed differences in construction, workmanship, fabrics, and in styles suited to different types of individuals. In addition to the borrowed garments, the writer took to class dresses that she had worn for different periods of time to show how

different standards of construction endured. She included some that were ready-made, one made by a former pupil, and two made by dressmakers. There were also examples of plackets and worn places cut from discarded garments.

When the girls saw the dresses in the room, their curiosity was thoroughly aroused. As soon as a list of things to look for was made, the girls were given the privilege of looking at the dresses. They looked for the causes of the differences they observed. Each pupil kept her own problem in mind as she examined the dresses and wrote down suggestions for decorations, standards of workmanship, and different methods of finishing seams in various kinds of textile fabrics.

Each girl was advised to select a problem that would not be too difficult but to select one which would involve processes that were new for her.

The observation of different types of dresses for particular methods of construction helped the pupils set up good standards. A few found it difficult to live up to the standards they had set up. Three of them even regretted that they had set up a good standard because they failed to attain it through not having recognized the causes of the differences in products. The two groups, as a whole, however, accepted the higher standards of techniques and workmanship and tried to achieve them.

The pupils liked to know that their progress was recorded. One girl was overheard to say, "Oh, no, she hasn't forgotten what you did; she has it down." It was not uncommon for a pupil to go to the teacher

to discuss her last problem and ask for suggestions as to how to improve her technique or to express her own ideas about improving her workmanship by a wiser choice of fabric or patterns.

The method of grading was discussed. The class agreed that since there was such a great difference in the skills and experiences of the different members, it would be fairer to grade on the progress shown rather than on the finished product itself. They were to work for progress in developing skill in handling and using sewing equipment; in selecting appropriate patterns and materials; in choosing standards of workmanship; and in solving clothing problems. Daily work and attitudes were to be considered as well as improvement in taking initiative; accepting responsibility in class; thinking through and solving problems; working quietly, consistently, quickly, and effectively toward the goal. Contributions to class work or discussions, questions showing thought, or any trait that showed real growth or development of the pupil were further factors to be considered.

There was, however, some misunderstanding concerning grades. A score card for judging dresses was worked out in class so that each girl could rate her dress. After the score was determined, there came the question, "What is my grade?" Some of the girls in the first group were unhappy about helping to evaluate their garments. They seemed afraid that if they made a suggestion for improvement they would get a lower grade. They most positively did not want to rate their own garments. "She's hard. She wants us to grade our own dresses." When six of the girls in the first group were asked if they were ready to

discuss their dresses with the teacher and rate them, they said they were not. They had carried the dresses home because the teacher did not grade them. One girl took her dress home before it was finished. She did not see any need for completing the garment if the teacher did not grade it. The dress was brought back and graded. Two grades were finally put on the report card. One grade was for the product; the other was for the quarter.²⁰

But a few of the first group rated their first garments and most of them helped rate the second dresses.

The second group of girls took it for granted that they should help decide what needed improvement and how to go about it. By the end of the second year only three girls said anything to the teacher about their grades.

An effort was made to see the mother of every girl and tell her about the plans for the study of clothing and the things to be accomplished. The mother was asked if she thought these things would fit into the needs of the girl and if she could give suggestions for making the study worthwhile. Her opinion regarding the amount of materials and supplies was obtained. Her cooperation was solicited.

The only girls who failed to bring materials to work with or who brought them late were girls whose mothers had not been so approached. The writer, however, had not talked with the mothers of every girl who brought her material on time.

²⁰ Grades were issued every two months.

The behavior of part of the pupils indicated interest in learning from the beginning, while others developed such behavior later. As the study progressed a greater number of pupils were asking for literature about the topics being studied. Both groups as a whole asked questions that could be turned into worthwhile discussions. They suggested class activities, told about planning the clothing for some other member of the family, brought in garments they had made at home to show improvement in workmanship and techniques. One girl wrote a play to be used for a fashion show. Certain girls showed initiative in working out problems in school and in taking care of their clothing at home. Others accepted more responsibility than at first. Four girls showed real self-control by controlling their habits of talking. By the end of the second year of working with group 2, only five girls spent too long in the dressing room at the beginning of the period. A notable change in the type of clothes worn on different occasions was observed. Other pupils in school also became interested in clothing that was appropriate to the occasion, in better techniques of construction, and in the kinds of lines to wear.

CHAPTER IV

SUMMARY AND RECOMMENDATIONS

To find the causes of lack of interest so that they could be eliminated by methods that would develop pupil interest in learning, the writer analyzed and classified pupil behavior which seemed to indicate a lack of interest as observed by her and by other experienced teachers in the field of home economics.

The investigation was carried out with two groups of girls under as near the same teaching situations as it was possible for the writer to conduct it.

The time required for pupils to carry out the activities planned required a longer time than the writer anticipated because some of the girls were so slow in getting materials and because more time was necessary for the pupils who taught themselves.

Whenever the writer observed that any one of these girls was putting to use the things she had learned in clothing, a record was made of the observation.

A record was kept of chance remarks of members of the family or friends concerning a girl's use of her study of clothing.

The girls did not know that anecdotal records of their behavior were being taken.

These records have been used to determine pupil behavior as a means of evaluating the techniques used to secure pupil interest in learning.

The findings show that pupil interest in learning was developed

and maintained throughout the study. Interest was shown by such pupil behavior as: taking initiative; assuming responsibility; contributing to class activities, both by voluntary contribution and from suggestions made by the teacher; reading home economics literature; asking questions that showed thought; being openminded; working consistently; evaluating work to find weakness; being resourceful; and developing skills.

Although not every girl exhibited behavior which could be taken as evidence of interest in learning, the writer feels that a start has been made for developing the interest of pupils in learning.

Since many factors enter into the causes of pupil behavior some pupils need more competent guidance in developing their interest than the writer was able to give them.

But for the majority of the pupils interest was developed and maintained through the use of such techniques as: pupil participation in setting up objectives and selecting activities for the course; basing activities on pupil interest and experiences; evaluation of her own work by the pupil and rating it on a progress chart; basing grades on progress rather than on a product; using pertinent source materials; enlisting cooperation between school and home.

The writer makes the following recommendations for further study:

1. A continuation of the same techniques with more emphasis on teaching the pupil how to use source materials correctly; home visiting; the use of the immediate interest of pupils; and pupil evaluation of work.

2. A trying out of techniques for the elimination of other causes of behavior showing lack of interest in learning.
3. The study of a course in Guidance so that the teacher may feel more competent of finding and enriching the interest of pupils who are not reached by techniques in use.

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APPENDIX

APPENDIX A

This is a check sheet for use as a record of progress¹ and for setting goals to be accomplished.

Use your own judgment as to your ability to do the following things. Use the following symbols to denote degree of accomplishment:

1. Denotes either no experience or no ability
2. Can do a little
3. Can do better than at first
4. Can do almost as well as I would like to
5. Can do a first class job

A. Operation and Use of Sewing Machine

1. Recognize good stitching
2. Can regulate the stitch
3. Can thread machine
4. Can control machine in stitching
5. Can clean and oil machine
6. Can open and close machine
7. Can use attachments

¹ This list was given to each girl in the beginning of the unit. She gave herself a rating for each activity. The list was filed in a manilla folder so that each girl could see her progress as activities were rated on the large chart in the room. This was made by pasting the progress chart on a large sheet of graph paper. Each girl's name was in a column at the top so that her progress could be rated.

:	:	:	:	:	:	:
:	Objectives in terms of ability	:	:	:	:	:
:		:	:	:	:	:
:		:	:	:	:	:
:		:	:	:	:	:
:	A. Operation and use of	:	:	:	:	:
:	sewing machine	:	:	:	:	:
:		:	:	:	:	:
:	1. Recognize good stitching	:	:	:	:	:
:	2. Can regulate the stitch	:	:	:	:	:
:		:	:	:	:	:
:		:	:	:	:	:

B. Fabrics

1. Recognize such fabrics as pique or ordinary cottons, linen, wool, rayon, silk
2. Able to select fabrics especially suited to individuals in respects to:
 - (a) Size
 - (b) Occasion
 - (c) Personality
3. Able to select fabrics especially suited to different designs of garments
4. Able to select fabrics that will give:
 - (a) Desired service
 - (b) Shrinkage
 - (c) Shine
 - (d) Stretch
 - (e) Color fastness
 - (f) Laundering
 - (g) Hold pressing
 - (h) Ease of construction
5. Able to judge what is fair price for a given material
6. Able to select colors suited to different individuals
7. Able to select pleasing color combinations

C. Pattern Selection and Use of:

1. Able to select designs suitable for individuals
 - (a) Considering size
 - (b) Various occasions
2. Able to take measurements
3. Able to select patterns according to measurements
4. Able to test pattern
5. Able to alter pattern
6. Able to interpret symbols
7. Able to place pattern on
 - (a) Plain material
 - (b) Material having a left and right
 - (c) Material having an up and down
 - (d) Material having an up and down and left and right
 - (e) Material having a right and wrong
 - (f) Material having a right and wrong, an up and down, left and right
8. Able to cut, marking notches and other symbols

D. Construction Processes

1. Able to decide what type of process is suited to particular situations
2. Able to recognize differences in standards of construction

3. Able to decide what standards of workmanship should be achieved in a given situation
 - (a) Choice of seams
 1. Hems
 2. Finishes
 3. Hand or machine stitching
 - (b) Perfection of stitching by machine by hand
 - (c) Neatness
4. Able to analyze steps in construction processes
 - (a) Bound button holes
 - (b) Making seams
 - (c) Set in pockets
 - (d) Plackets
 - (e) Making collar
 - (f) Putting on collar
 - (g) Making sleeves
 - (h) Putting in sleeves
5. Able to follow printed directions concerning construction processes.
6. Able to do construction work in keeping with standard set-up
 - (a) Seams
 - (b) Stitches
 - (c) Shirring, smocking, other decorative stitches
 - (d) Hems--evenness--stitching
 - (e) Plackets--with or without zipper
 - (f) Bindings--evenness--stitching
 - (g) Facings--evenness--stitching
 - (h) Button holes
 1. worked
 2. bound
7. Able to plan sequence of work in putting garment together
 - (a) Thimble
 - (b) Needles--size, holding
 - (c) Scissors
 - (d) Tape measure
 - (e) Pins
8. Able to handle materials efficiently

E. Planning Clothing Needs

1. Able to make a plan for a year's wardrobe for a high school girl based on:
 - (a) Definite basic color scheme
 - (b) Various income levels
 1. Usable as it is
 2. Can be made over
2. Able to judge the comparative value of homemade garments, ready-made garments

3. Able to select ready to wear accessories

- (a) Shoes
- (b) Hats
- (c) Hose
- (d) Undies
- (e) Gloves
- (f) Purses
- (g) Other accessories

F. Marketing Practices

1. Able to judge what services you pay for when buying in different stores
2. Able to analyze own and community buying practices to see what
 - (a) Contributions can be made to better marketing practices
 - (b) Contributions are made to poorer marketing conditions

G. Care of Clothing

1. Recognize the importance of the care of clothing to one's appearance
2. Storage space
 - (a) Can plan for adequate space
 - (b) Can provide adequate storage for clothing
 - (c) Use storage space for clothing
 - (d) Protects clothing from moths and other insects
3. Recognize good standards of pressing
4. Use good standards of pressing
5. Know desirable methods of laundering
 - (a) Cotton
 - (b) Linen
 - (c) Silk
 - (d) Woolens
 - (e) Rays
6. Able to remove spots and stains
7. Recognize good standards of mending clothes
8. Recognize reasons for ill fitting clothes
9. Can remedy unsatisfactory fit of clothes

APPENDIX B

Explanation

The following device has been used as an aid in making anecdotal records of pupil behavior which showed interest as observed in clothing class. It was used when the class was planning, discussing, explaining, constructing, or carrying on activities in a normal way. As soon as the teacher had opportunity, she recorded any observations made on the pupil's index card the number corresponding to her participation. ("a" represented evidences of interest in learning; "b" represented evidences of lack of interest in learning) Any particularly good (or poor) question or contribution by the individual was recorded. This device was set up in an effort to classify activities the writer thought were indicative of interest in learning.

I. Inquiry

- A. Student asks questions which show thoughtful attitudes as opposed to questions with little or no thinking, goes to stores to learn for herself what information she can get from clerks, officials, or from observing materials offered for sale, labels, on information found on materials or ready made clothing, uses learning materials, gets information from as many sources as possible before making decision.
- B. Student asks questions which show little thinking, wants to be told rather than to seek information for herself.

II. Responsibility

- A. Student assumes responsibility for continuing work when teacher

is not present; for her share of work in a group problem; for responsibility for making work with others go smoothly; assumes her responsibility in the care of the laboratory, materials, and property belonging to the school or group as a whole; assumes her share of the responsibility for her grade.

- B. Student stops work or talks so much that she cannot accomplish a great deal, fails to accept her share of responsibility in group problems, such as, making work go smoothly when working with others, taking care of laboratory or materials belonging to group or school, and blames teacher for rating her lower than someone else.

III. Openmindedness

- A. Student is willing to abandon predetermined ideas for ideas which seem in the light of present knowledge, to be more nearly correct; accepts good, clear evidence without sulking or useless argument. She tries different methods.
- B. Student wants to hold to old ideas and methods of doing a thing. She accepts suggestions as adverse criticism; does not want to try different methods; and sulks.

IV. Work Habits

- A. Pupil works consistently at any task until it is done; works eagerly; tries to do her work as well as she can; shows evidence of doing work carefully; puts away materials quickly, quietly, neatly.

B. Fusses about the kind and amount of work to be done; sees how little she can get by with; practices such practices such poor habits that work is soiled, poorly done, wrinkled; wads work and materials into box or else takes too much time in putting materials away in an orderly way.

C. Works slowly, without confidence.

V. Initiative

A. Pupil does her work without aid from teacher or other pupils; completes work without constant reminders from teacher; recognizes problems and tries to solve them without being told what to do by teacher or other pupils.

B. Pupil needs to be reminded to get to work; requires assistance in solving problem; recognizes her personal problems only when they are pointed out to her.

C. Pupil needs help. She recognizes that things need to be done but lacks self-confidence.

VI. Self-appraisal

A. Pupil recognizes where she has fallen short of goal set for herself and points out to teacher what she needs to work on for improvement; evaluates work by device worked out or accepted by the class; recognizes that she can do a better piece of work and does it over.

B. Pupil cannot or does not recognize how short she is of the goal she set for herself, will not evaluate her work by device accepted by class; either has to be told to take out or do

over a piece of work or else hands in poor workmanship.

VII. Resourcefulness

- A. Student devises means of getting materials to work with; suggests or tries new ways of doing things; uses originality in decorations or fastenings; changes design slightly; plans combinations of materials or effective methods of piecing materials when there is too little for pattern selected; uses own judgment rather than slavishly following directions for laying pattern, sewing in zipper or finishing opening.
- B. Student fails to get material to work with but has money for other things; follows directions without trying different methods of laying pattern to save material; begins cutting garment before determining if she has enough material for pattern she is using; fails to piece material or to combine it with something else if material is insufficient for pattern; argues that pattern guide says do a certain thing when she does not understand what the pattern guide is telling her.

VIII. Contributions to class work and discussion as result of teacher suggestions.

- A. Student brings in problems to be solved; brings in information she has observed or learned from someone else; brings magazine articles or books she thinks will strengthen class work. Suggests things she would like to study.
- B. No contributions.
- C. Cannot get material but has money for other things.

IX. Voluntary Contributions

- A. Student shows an intellectual interest in subject by doing outside work that is not required of her, such as reading, making posters, charts or other equipment; volunteers to make special reports; volunteers to carry out projects suggested by teacher; volunteers to go to stores to secure information needed in class.
- B. Student does only work required of her; does not volunteer for special projects or work.

X. Skills

- A. Student recognizes that a certain amount of skill is necessary in order to accomplish the desired results in garment construction and that a knowledge of construction and a well made garment is dependent upon her skill in making it; therefore, she makes an effort to improve her stitching by stitching along designs on paper. She uses gauges for keeping seams or hems the same width. She shows skill in following and interpreting pattern guide, laying pattern, and in cutting and construction processes. She expresses skill in use and adjustment of sewing machine.
- B. Shows little interest in improving technical or intellectual skills.

XI. Self-Control.

APPENDIX C

ANECDOTAL RECORDS

The following records of the observations of the growth of two girls in the first group are typical of the behavior of most of the group. There were five girls, however, whose growth in effort to improve standards or in assuming responsibility for learning did not begin to measure up to the others; records of the behavior typical of these girls is also given.

RECORD OF J

Although she had completed first year Home Economics she had no confidence in her ability to make a garment by herself or to begin any of the construction processes. She accepted the challenge of learning to teach herself and to improve her standards of workmanship. The manipulative skills in sewing were not easy for her but she put forth a great effort. In the beginning she had to rely almost entirely on the teacher but before she finished the first garment, she had gained some self-confidence. Her growth was shown in many situations. She and the girl she worked with used the construction processes from the illustrative materials and the text and reference books, along with the pattern guide to work out a plan of work to follow, and the sequence of steps for particular processes.

She assumed responsibility for the care of her materials and those of the department, for the performance of certain housekeeping duties,

for her conduct and for evaluating her work.

Because of her lack of confidence in her ability to sew, she selected a very simple pattern and plain material. But she worked with her partner so well, she knew how to do not only the construction processes in her dress, but those of her partner's dress as well, and because of that learned how to lay a pattern on striped material having a left and right, and a right and a wrong side. The two of them taught themselves how to lay a pattern so that checks would match and how to save material in plain material.

She read and reported on three clothing books; they were, Your Clothes and Personality, by Ryan, What is She Like, by Broughton, and Mode in Dress and Home, by Donovan. Her satisfaction in growth is shown by the comment she handed in at the time she evaluated her dress.

I learned so much more about sewing this year. I've found that I really enjoy it. I owe most of it to my teacher because she explains things well.

I have learned a better way of basting. It is a neater way and is much easier. By using a piece of pasteboard to baste I could make the seam straighter. I can sew straighter on the machine.

I understand how to make a placket now, and I find it very easy.

I learned how to cut out a garment.

RECORD OF Q

She had also had one year of home economics.

She was delighted at the idea of being graded on progress rather than the product. "I'm sure that I can make a lot of progress." She

showed much interest too in the score card for rating the dresses.

"Do you mean that you are going to let us rate our own dresses? I thought the teacher always did that. I'm not sure that I can, but I'll try."

She showed growth in many ways. She seemed to think at first that the whole study was a teacher affair but after accepting the proposition that it was a student-teacher course, she showed much growth in the development of behavior indicative of interest in learning. She made many suggestions for activities to be carried on in class. She read and reported on The Mode in Dress and Home by Donovan and Your Clothes and Personality, by Ryan. Her class reports on accessories were well organized and well received. She said that after following the suggestions for buying hose that her hose lasted longer than any she had ever had before. She worked out a plan of spending the family income which her grandmother said they would try to follow. She assumed the responsibility of planning and selecting clothing for her grandmother, who liked her selections very much.

She wrote a play on how to select appropriate clothing. She said that the next class could use it for a fashion show if they should have one. Her estimate of her achievements is shown in her statements, which also show her joy in accomplishment, which she handed at the time she evaluated her dress.

I left my sleeves until last to cut out because I was going to make long sleeves and I didn't have enough material. After I found out that I could make short sleeves out of the material that I did have left, I laid my pattern down and cut them. Although I knew I was laying the material the wrong way, I went

on and cut them anyway, because it was the only way I could cut them without piecing them. After I cut them, marked the darts and started basting them, I found out that I could not make my sleeves exactly like the pattern because it called for cuff links and I couldn't get any like my buttons, so I had to make them a different way. After making my sleeves, I tried to put them in my dress and I got the wrong sleeve in the right armhole and they didn't fit very well. After deciding to get some more material, I made my sleeves all over again, and this time I made them exactly right and put them in right. I learned very much from making my sleeves; first, how the pattern should be placed (lengthwise, not crosswise of the material) and second, how to make a sleeve with a pleat in it.

I placed my material and pattern, marked my darts, cut out the collar, basted, sewed, and put on my collar very nicely, I think, without any trouble at all. And all of it was right. I learned everything I did about my collar because I had never put one on, cut, or sewed one before. I think I can put a collar on now as nicely as most anyone.

I placed my material, placed pattern, marked darts, cut waist, basted, and sewed it without any trouble. I learned some more about how to place the pattern (straight of material, for back), and how to make a waist like that. And how to make buttonholes with a machine attachment for the buttonhole.

I placed material and pattern, marked darts, cut, basted, and sewed my skirt without much trouble. All my troubles were in getting the pleats exactly in proportion and to get it to fit me perfectly. This wasn't so very hard to do. I also learned a lot from making my skirt before and I have never sewed any silk or crepe material before.

Taking my dress as a whole I learned almost everything I did about it. I had never sewed silk material before, never made buttonholes, never made pleats, never put on buttons, and never made a collar before. Also I made my dress in a very short time compared to the work done on each garment and the work done last year by some of the people in our room. I shall not grade myself in (a,b,c,d, or e) but I really do think I have done a very good job in making my dress. I enjoyed it, and I enjoy wearing it. It came out just as well as I planned it and I am very proud of my dress. (Of course this is my personal opinion)

This is a record of X, whose behavior was similar to that of other girls who seemed most interested in learning.

RECORD OF PUPIL X

She showed initiative by asking questions that voiced the sentiment of the class. It was she who said that the class had never made a plan of work; therefore, she was not quite sure that she knew how to go about it. "Would you mind putting one for an apron on the board?" She said it sounded so much like a pattern guide, she wondered if it wouldn't be just as good to go by the pattern guide. She was the first girl to make a plan of work. She said it helped her because after she had thought through the problem she knew the sequence of steps and could work faster because she didn't have to stop to find out what to do next and there were so many little things she could baste while waiting to use equipment.

She used illustrative materials instead of asking the teacher how to go about construction processes, but occasionally needed help, and always got the teacher's O. K. before going ahead. She laid patterns on checked materials to see how to match checks and on plain materials to learn the most economical method of cutting. She tried several methods of doing a process before deciding upon which one to use. She asked if she might make the construction processes rather than take an exam (she could easily have passed any examination). She was very eager to do anything that would help her to learn something new.

She asked for Mode in Dress and Home so that she could look up suggestions of how to dress different types of figures, in the face of

contrary remarks from four members of the class.

She said, "I wish that I had made plackets before I made my coat. I'll never leave off a placket again because I am afraid it is hard to make."

She showed resourcefulness in that she followed directions in pattern guides and source materials carefully, doing each step as it was suggested, and needed very little help from teacher. She figured out methods for changing details of pattern; made walnut buttons and belt after seeing them; and put darts in the back of her coat in order to take out fullness allowed for person having a fuller figure. (Her coat fitted another member of the class, using same size pattern, perfectly, but it bagged between the shoulders on her.)

She made worthwhile contributions to class. Her reports ended in class discussions. She told of experiences of listening to women shopping. She asked questions that led to class discussion.

She made a number of voluntary contributions. She brought samples of woolen materials to class. She asked if class could follow the custom of making a spring dress, and brought samples of sheer materials. She said she was glad she was making illustrations of construction processes, because, "My mother made them at Peace and she says I'm doing better than she did."

She was very dependable. She worked well with the group and was accepted as a leader in class. She would say to girls who were wasting time, "Why don't you get to work?" or "I wouldn't do that. Why don't you do what you ought to?" She worked quietly and orderly regardless

of where the teacher was.

She developed excellent techniques of construction. It took her twice as long to make her coat as was anticipated, but she taught herself to find lengthwise threads, to do tailor tacks, and all the other construction processes rather than ask for help. She formed the habit of trying out the length of stitches and the tension before stitching her garment. She helped other girls thread the machines and put in bobbins when they asked her to.

She practically took charge of the care of her clothes. She helped select and wore clothes that were ideal for school. She was neat and well groomed. She carefully observed garments and accessories to find things she could use.

Report from Mother:

X has splended ideas about how to select her clothes. She is capable of planning her wardrobe. I am very pleased with the many things she has learned in clothing this year; and was surprised to find her changing hems and sewing on fasteners without being told to do it. She plans good color combinations and seems to have some idea of the cost of clothes and howmuch money she should ask for.

GROUP II M

This girl took little active part in class work. She wanted to sit in corner behind the stove and showed either a lack of interest in learning or a lack of adjustment. She did not seem very sure of herself. She lacked an inquiring mind. She wanted to be told what to do

and how to do it. Her behavior is typical of four girls.

RECORD OF M

She assumed little responsibility. She usually did her house-keeping duties but had to be reminded of them occasionally. She had trouble keeping up with her equipment and with her patterns and materials. Someone else practically always used what she borrowed from the department after she got through with it; therefore she never felt responsible for its return. She looked at the dresses from stores but could not see the causes of the differences in quality or workmanship. She took her material home without letting the teacher know about it and cut part of her garment there. She said that she did not know that her material had an up and a down. She did not know that when two pieces were cut with the same piece of pattern one had to be for the right and the other for the left side.

She did not make a doll dress when other girls did. She brought a child's sample for learning to embroider and worked at it five weeks but it never was finished.

She had difficulty understanding the pattern guide and also what the teacher told her or showed her. She had to be shown how to do every process in detail. It took her a week and a half to bind the front opening of a blouse and one side was wider than the other when she finished it.

She waited for the teacher to help her with her sleeves three days without letting the teacher know that she wanted help. Everytime the

teacher got near her, her work either went under the table or was folded in the box.

She was too retiring to try self-appraisal. She said she just could not judge her work and was so embarrassed the teacher wouldn't press her to try to evaluate it.

She showed little resourcefulness. She failed to lay the pattern to find the best possible method of getting her garment before she began cutting it, and did not get the teacher's O. K. on how the pattern was laid before cutting material.

She made no reports; seemed too embarrassed to answer questions; and never made voluntary remarks. She developed very little during the entire year.

She read one book--Myers, I Am Growing Up.

She used a guage after the teacher showed her exactly how to make it and use it for keeping the seams the same width. But it did not seem to have done much good after she stitched the seam on the machine. The teacher was never sure that M could even thread a machine or put in a bobbin correctly.

RECORD OF PUPIL U.

She came to us from X High School. She said that she could never finish there. Her behavior shows little development in learning. It may indicate a lack of adjustment. No one else showed the same behavior traits or attitudes.

She wanted the teacher to tell her what lines she should wear. She said she didn't want to look it up. Neither did she want to use

source materials as guides for performing construction processes but when she did use them she wanted the teacher to show her exactly how to use them and how to begin each process.

She would not try to put in a zipper till the teacher showed her how and stood by her till it was put in correctly.

She did nothing when the teacher was not near her. She talked so much when she was near anyone who would listen she could not accomplish very much. She said she was afraid that the girls would think that she was not friendly if she did not talk to them or listen to them if they started talking. She "picked at" other girls in class when she found that she could aggravate them; she had to be reminded to do her housekeeping duties and could not find dust cloths, broom or dust pan.

She could not understand why she didn't get as good a grade as anyone else. "I've done everything you told me to. I would have completed the wool skirt in the fall if you had told me that I would fail if I didn't."

When the other girls were talking about making construction stitches and processes, she said that she didn't see any use of doing it. When the teacher agreed with her and told her she need not do it, she said, "Heck, I'll do it if everybody else is going to do it. I don't want to be the only one who doesn't do it." She didn't want to make a plan of work but said she would if the teacher would help her start it. She lost it. She did not make another because it looked like a waste of time.

She showed no improvement in developing skills. She could do

good work but usually did it poorly as if she wanted to see if the teacher would "make" her do it again. When the teacher would agree that what she had done was possibly as good as she could do, she would take it out. She fussed about making "those old samples," having to read, and about making reports in class. In the beginning of the class period she either talked or sat behind the heater till she was reminded to get to work. She did not want to use a guage for getting an even hem or for keeping seams the same width. She said that she could not see anything wrong with work.

She said that she could not get material for a dress either in the fall or in the spring. When the unit on clothing was almost finished, she got material for a woolen skirt which she finished in the spring. She had money to spend all during the day and she had two permanents during the year.

When the other girls were making spring dresses, she said that she was graduating so it would take all her money to buy calling cards, invitations, and to pay other graduating expense. She said that she would rather go to the style show at State College in Raleigh than to get a dress for herself. If I have to make something to show you that I can lay a pattern and set in sleeves, let me make one of the Red Cross garments.

As evidence of some interest and growth she made a short report on cotton growth and manufacture, and another on what to consider when buying gloves and when to use them.

She volunteered to look up what things to consider when selecting

stationery and to see what the books on etiquette had to say about what colors of stationery to use. She went to source materials to learn something about wool.

She brought some rock to the teacher so that bulbs could be put out in the laboratory.

RECORD OF PUPIL L.

She expressed the desire to be appropriately and attractively dressed; to make a good impression on others; and to learn how to select ready-made clothing and household linens. "Our House has just burned down and we lost all our clothes--everything." She wanted to be able to replace necessities, wisely. She did not, however, want to read any of the suggested literature. "Every time I didn't have something to do last year, the teacher made me read one of those old home ec. books. I wouldn't mind reading them if they had something new in them, but I know what's in the books in the library."

She wore jitterbug shirts² to school part of the time during the first two weeks of school, and said, during the discussion on clothes that were suitable for school wear, that she didn't see why they were not as appropriate for school as anything else. That was the last time, however, that she wore them to class outside her skirt.

She got to class from ten to fifteen minutes late every day. She wanted to take her material in another room and lay the pattern and she

² Loose, kimona-like shirts worn outside the skirt. It was popular to wear them to jitterbug dances.

wanted two other girls with her. They talked so much and so loud the teacher had them go back to the clothing laboratory. She said that by the time she could get a table on which to cut her skirt, she had lost all interest in making it.

She was very intimate with two girls who often made remarks about how late they were out the night before. She assumed a very disinterested attitude and did little to achieve the objectives she had helped set up.

She made reports on how to buy ready-made coats, dresses, and hats, after much persuasion and three trials of telling "about how to buy" she gave definite things to look for or to avoid when making a purchase of either of these garments. She was much pleased with the teacher's commendations when she gave a good report.

The teacher visited her home in March, and discussed what could be done about the state of affairs. X had told her mother, "The teacher doesn't care whether I do anything or not." Her mother said that she had made the woolen skirt because X needed it. Several misunderstandings were cleared up.

She got material for a rayon sports dress, to make during the class problem of constructing a spring dress. She made most of it at home. But she did various construction processes on scraps at school to show that she could do them.

The development of her interest in learning was evident in several ways.

She read and reported on three books relating to clothing and personality.

She went back to school in the fall and took the fall term of Second-Year Home Economics over. She made a woolen dress, entered into class discussions, showed marked improvement in her selection of clothing, and accepted her share of responsibility for the care of the laboratory and for working smoothly and cooperatively in a group.

She was absent from school repeatedly, often for ten days at a time. But, by getting permission to take her work home to perform certain processes which she demonstrated that she could do, she made her dress in the length of time she set up.

She asked permission to continue to go to the clothing laboratory after she had completed her work; she promised that she would not talk or disturb class work in any way.

She assumed her share of responsibility for making draperies for the laboratory just as the other girls did; proudly showed several dresses she had made at home, and appeared to be interested in the reports made by the other girls.

After Easter, she said that she had made the spring coat she was wearing. "The dressmaker who worked the buttonholes, asked me if I wouldn't go sew in her sewing room. She said I had done a good job on my coat."

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THE SCHOOL LUNCH AS A MEANS OF STRENGTHENING
HOME ECONOMICS INSTRUCTION

By

Catherine Turner

A thesis submitted to the Faculty of
the University of North Carolina in
partial fulfillment of the requirements
for the degree of Master of Science in
the Department of Home Economics.

Woman's College

University of North Carolina

1941

Approved by:

Mabel V. Campbell
Advisor

ABSTRACT OF THESIS

CATHERINE TURNER. The School Lunch as a Means of Strengthening Home Economics instruction. (Under the direction of MABEL V. CAMPBELL.)

The purpose of this study was to make a list of possible student activities in the lunchroom situation to help teachers to overcome difficulties they encountered in the usual home economics classroom.

A selected group of sixty-one teachers rated a list of specific objectives relating to food and nutrition as to the importance of the objective, the amount of difficulty they encountered in achieving, and the reason for the difficulty. From this data the writer compiled a list of suggested activities for the use of the school lunch as a means of overcoming some of the difficulties encountered.

ACKNOWLEDGEMENT

The writer wishes to express her appreciation to Miss Mabel V. Campbell, director of this thesis, for her patience, encouragement, and guidance in carrying this work to its completion. She wishes also to thank the sixty-one North Carolina high school home economics teachers for the contribution of their time and thought which made this study possible and to Miss Margaret M. Edwards, head of the Home Economics Department, and other friends for their encouragement which has taken her over many an obstacle.

C. T.

Greensboro, N. C.

August 1, 1941

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CHAPTER I

INTRODUCTION

The purpose of this study is to explore the situation that exists in the school lunchroom as at present administered by the Works Project Administration, in the hope of finding opportunities that may be used for strengthening the educational program of the home economics department.

Because of her conviction that unused opportunities exist, and because of her many questions concerning possible organization of a cooperative program, the writer has undertaken this study. Because of the generally recognized need which has resulted in a marked increase in the number of school lunches and in a different public conception as to its purpose, this seemed to be an opportune time to make such a study.

CHAPTER II

REVIEW OF LITERATURE

There has been a marked change in what educators think of as the function of the school lunch. According to one authority¹ the original function of the school lunch was to feed the poor. Some school lunches were set up by charitable organizations for the feeding of malnourished children.² As early as 1855, the Children's Aid Society furnished free lunches to the children of the industrial schools of New York City.³ Others followed, such as the Boston Committee under the leadership of Ellen H. Richards,⁴ the Star Center Association in Philadelphia, the Parent-Teacher Association in Birmingham, Alabama, and the Woman's Federation of Clubs in Cleveland.⁵

In some schools, lunchrooms were designed to be a protection against the lunch basket and vendors for the children who were unable to go home.⁶ Many of these lunchrooms were in charge of concessionaires, such as those in Cleveland, Chicago, Rochester, New York, and St. Louis.⁷ The concessionaire method of management has not been

¹Briggs, Howard L. and Hart, Constance C., "From Basket Lunches to Cafeterias--A Story of Progress," Nations Schools, Vol. VIII (November 1931), p. 52.

²Ibid, p. 52.

³Bryant, Louise Stevens, "The School Feeding Movement", The Psychological Clinic, Vol. VI (April 15, 1912), p. 32.

⁴Cross, E. W., "The Daily Meals of School Children", (Digest) Journal of Home Economics, Vol. I (October 1909), p. 364.

⁵Briggs and Hart, op. cit., p. 52.

⁶Ibid, p. 52.

⁷Knoll, Arthur A., "School Lunchrooms--Whither Away?", Journal of American Dietetic Association, Vol. XVI (January 1940), p. 43.

common in the development of school lunches in most cities.⁸ Now the school lunch is for all children who eat at school. It is agreed that it is safer, more healthful, and cheaper than to have the children go home.⁹ Nourishing the body of the school child is as important as nourishing his mind.¹⁰ Through this school lunch an excellent health teaching situation may be set up.¹¹ Mary G. McCormick states:

"The educational possibilities of the school lunch in any community are just as broad or just as narrow as the educational philosophy of its school administrators and its faculty."¹²

A school lunchroom that is efficient will influence food habits of children¹³ and teach them the proper selection of food.¹⁴ It will also teach good habits of sanitation, good table ethics, and social responsibilities. S. M. Brownell lists specifically the various

⁸Briggs and Hart, op. cit., p. 52.

⁹Smedley, Emma, "Developing Good Diet Habits by Proper Cafeteria Control," Nation's Schools, Vol. I (February 1928), p. 45.

¹⁰Editorial, "The School Lunch Program Using Surplus Foods," School and College Cafeterias, Vol. IV (January 1941), p. 10.

¹¹McCormick, Mary G., "The Educational Possibilities of the School Lunch," Journal of Home Economics, Vol. XXXI (April 1939), p. 226.

¹²Ibid, p. 226.

¹³Normington, Flavilla, "Health Education in Chicago High School Lunchrooms," Journal of Health and Physical Education, Vol. III (April 1932), p. 11.

¹⁴Normington, Flavilla, "Manners and Conduct in the School Lunchroom," Practical Home Economics, Vol. XI (May 1933), p. 145.

possibilities of the social aspect:

These more desirable habits and attitudes are:

(1) enjoyment of the meal (2) ability to relax (3) habit of taking reasonable time (4) enjoyment of companionship during a meal (5) ability to converse with friends while eating without annoying others (6) ability to eat in public with reasonably good taste and manners (7) care to avoid spilling food on table and floor (8) ability to eat in public without feeling self-conscious."¹⁵

The school lunch may be used not only by the home economics classes but it may also enrich the work of many other departments, such as art, physical education, natural science, and commercial departments.¹⁶

The school lunchroom has served the community through spreading information about nutrition.¹⁷ This is often done through newspaper publicity as well as through mimeographed material distributed to the home.¹⁸ The school lunchroom also takes its place in the community by serving refreshments for social meetings of school organizations. In some instances this activity has been furthered by catering to luncheons and dinners of school and civic bodies.¹⁹

Thus the school cafeteria has grown from its meager beginning to

¹⁵Brownell, S. M., "Cultural Training is Acquired in the School Cafeteria," Nations Schools, Vol. XII (December 1933), p. 26.

¹⁶Bryan, Mary de Garmo, "A Three-Way Educational Program for the School Lunchroom," Nation's Schools, Vol. XIII (March 1934), p. 15.

¹⁷Ibid, p. 15.

¹⁸Shirley, Florence Keller, "Educative Value in the School Lunch," Journal of Home Economics, Vol. XXIV (July 1932), p. 605.

¹⁹Editorial, "Cafeteria Assumes New Importance," Nation's Schools, Vol. XV (March 1935), p. 49.

an organization that functions as a source of nourishing meals to combat malnutrition and thus to contribute to the success of the school program. The cafeteria teaches proper food selection and good health training. It serves as a means of correlating classroom teaching with a practical application of home economics. It must interest the public in food service and instill the knowledge that the nutrition needs of each child must be adequately met at home and at school.

Today it is an established fact that society must provide for the underprivileged. In 1933 through the activities of federal agencies provision was first made to use federal funds to feed at school these underprivileged children.²⁰ Today, the Works Projects Administration has replaced this Federal Emergency Relief Administration and the Civil Works Administration. Through the distribution of surplus commodities, the Federal Surplus Commodities Corporation has encouraged school lunches for the underprivileged and the undernourished.²¹

Today patrons of the W. P. A. school lunchroom may include paying customers as well as pupils who are either malnourished or unable to pay. As in the early days of school lunchrooms in America the lunchrooms are sponsored by school boards, parent teacher associations and

²⁰Bryan, Mary de Garmo, "Training and Opportunities for Dietitians and Institution Managers," Journal of Home Economics, Vol. XXI (September 1939), p. 465.

²¹Currier, Thelma Tubbs, "Federal Surplus Commodities and School Lunches," Journal of American Dietetic Association, Vol. XVI (August-September 1940), p. 668.

charitable organizations. To this group are now added the government agencies.

Today school lunchrooms are managed by concessionnaires,²² home economics teachers,²³ trained cafeteria managers,²⁴ and untrained managers.²⁵ The untrained manager may be either a housewife or someone in the community needing help. When the home economics teacher is in charge, the home economics classes may or may not share in its management and in doing the work.²⁶ It is generally recognized that the best type of management is under a trained person. The following resolution was adopted at the Thirtieth Annual Meeting of the American Home Economics Association in 1937:

"Resolved that school administrators be urged to secure supervision of the school lunchroom by trained persons on a professional rather than a commercial basis."²⁷

²²Editorial, "The School Lunch," Journal of Home Economics, Vol. XXX (January 1938), p. 32.

²³Faliart, Mrs. C. R., "How Other Schools Do It," School Management, Vol. I (May 1932), p. 20.

²⁴Massey, Nellie and Christy, Erna B., "The School Cafeteria Helps to Solve the Depression Problem," Practical Home Economics, Vol. XI (February 1933), p. 55.

²⁵Moehlman, Arthur B., "School Lunchrooms," Nation's Schools, Vol. XIX (April 1937), p. 16.

²⁶Wilson, Elsie, "The School Lunch Offers Training in Management," Practical Home Economics, Vol. XI (May 1933), p. 146.

²⁷Editorial, "Health Education and School Lunches," Journal of Home Economics, Vol. XXIX (October 1937), p. 563.

There is a difference of opinion as to the use of home economics classes in the school lunch. Edna Barclay in 1921 expressed her belief that home economics classes should not be either wholly or in part responsible for the lunch.²⁸ Carolina Hunt suggested that it may be a means of strengthening the work in food and allied subjects.²⁹ As early as 1909, a few trade schools recognized the value of the school lunchrooms in the training of home economics students.³⁰ However in present day literature we find few reports of schools which are correlating home economics with the school lunchroom.³¹ Although we find in the literature frequent references to the fact that the school lunch can be effectively used in the educational program, we find few suggestions as to how to do it.

Martha Ann Park, in 1931, reported a study of "Some Values of a School Lunch as a Project for Teaching Foods in a Homemaking Course."³² Based on a comparison of the objectives of the high school course in foods and her observations in the lunch rooms in four Iowa Schools, she

²⁸Park, Martha Ann. "Some Values of the School Lunch as a Project for the Teaching of Foods in the Homemaking Courses." Unpublished Masters' Thesis, Iowa State College, 1931, p. 9.

²⁹Ibid, p. 7.

³⁰Cross, E. W. (Digest) "The Daily Meals of School Children," Journal of Home Economics, Vol. I (October 1909), p. 364.

³¹Editorial. "Educational Uses of Lunchrooms," Practical Home Economics, Vol. XIII (February 1935), p. 50.

³²Park, Martha Ann. "Some Values of the School Lunch as a Project for the Teaching of Foods in the Homemaking Course," Unpublished Master's Thesis, Iowa State College, 1931.

concluded;"

"(1) That pupil outcomes in the school lunch project could be very much the same as in the regular foods course. (2) For many phases of foods work in a homemaking course it might be advantageous to base the work on a school lunch project because the problems are real, and (3) With careful organization and direction the work does not exploit the students."³³

Out of the school lunch program should come pupil growth. In order to bring about growth real life experiences must be met.³⁴ Telling pupils to think will not make them think, but giving them a problem which lies within their power to solve will naturally promote thought.³⁵

The school lunch has an active part in such a program. As Arthur A. Knoll has stated;

"The modern educational program is chiefly concerned with creative life situations in which the child learns by precept and deed. It is felt that under such teaching there is a much greater carry-over into after life. Surely here in the lunchroom is an opportunity that should not be overlooked by the progressive teacher or educational system."³⁶

Believing with Knoll that the school lunch situation does present largely unexplored possibilities for contributing to the educational program, the writer has attempted this study.

³³Ibid, p. 80.

³⁴Normington, Flavilla. "The School Lunchroom--An Important Cog in the Teaching Machine," Nation's Schools. Vol. XI (April 1933), p. 45.

³⁵Lancelot, William. Handbook of Teaching Skills - New York J. Wiley & Sons, Inc., 1929. pp. 34-35.

³⁶Knoll, Arthur A. "School Lunchrooms Whither Away?", Journal of American Dietetic Association, Vol. XVI (January 1940), p. 46.

CHAPTER III

THE STUDY

This study, which was made in an effort to find means through which the facilities of the school lunch might be used to strengthen the instruction in home economics, consists of two parts:

1. The difficulties experienced by a selected group of home economics teachers in teaching foods and nutrition have been discovered and analyzed.
2. The opportunities provided in the school lunch as administered by the Work Projects Administration were analyzed to find experiences which might enable the home economics teacher to overcome a selected group of outstanding difficulties.

Part 1. Difficulties encountered in achieving important objectives.

Procedure.

Information was secured from a selected group of sixty-one North Carolina home economics teachers.¹ As indicated in Tables 1 and 2, they represent schools varying greatly in size, in number of students enrolled in home economics classes, in number of students served in school lunch, in the responsibility of the home economics teacher for the lunch, in type of lunch served. They also represent all sections of the state.

In setting up the list of objectives used in the questionnaire, the writer supplemented her own experience by suggestions secured from the

¹This group represents 61 per cent of the teachers to whom the questionnaires were sent. The teachers were selected at the recommendation of the State and District Supervisors.

North Carolina Course of Study in Home Economics, and other literature in this field.²

Table 1. Enrollment in home economics. Number of schools having given enrollments in each year

	NONE	1 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 70	71 - 80	81 - 90	91 - 100	101 - 180
Year of Home Economics												
Seventh Grade	60	0	1	0	0	0	0	0	0	0	0	0
First year	0	1	5	15	16	9	4	2	3	0	2	4
Second year	2	1	10	19	15	2	6	1	1	1	1	2
Third year	28	4	14	5	5	0	2	1	1	1	0	0
Fourth year	60	0	0	0	0	0	0	1	0	0	0	0
Total	--	6	30	39	36	11	12	5	5	2	3	6

The questionnaire used in securing data provided for the checking by the teacher of a list of possible objectives as follows:

1. The importance of each objective was indicated by checking the

2. Bryan, Mary de Garmo. The School Cafeteria. F. S. Croft and Company, New York, 1936.

Harris, Florence Ganke and Henderson, Ruth Adele. Foods--Their Nutritive Economic and Social Values, Little, Brown and Company, Boston, 1940.

North, Sister Maud. "A Plan for an Integrated Course on Institutional Economics," Unpublished Master's Thesis, Woman's College of University of North Carolina, 1940.

Table 2. Size and set-up of School Lunch

Type of meals served	W.P.A. Project	Surplus commodities used	None Economics teacher's responsibility	Number serving school lunch		Home Economics teacher's responsibility		No. of schools		Number of schools serving given numbers									
				Not answered	Yes	Not Stated	1-49	50-99	100-149	150-199	200-249	250-299	300-349	350-399	550-700	Over 800			
cafeteria plate hot dish commercial products	0	31	19	1	0	1	4	2	1	3	3	0	2	2					
	0	17	33	1	1	5	6	6	5	3	3	1	1	1					
	0	33	17	2	1	3	1	3	2	1	0	1	1	2					
none complete advisory	0	48	2	0	1	1	0	0	0	0	0	0	0	0					
	0	26	24	2	0	4	4	4	3	3	3	1	0	0					
	1	17	32	2	0	4	7	5	3	3	5	2	1	0					

one of the following statements which represented the importance of that objective to her students: should be stressed, worthwhile but not of outstanding importance, should not be attempted, no experience with this objective.

2. The difficulty encountered in achieving each objective was indicated by checking the one of the following statements which represented the difficulty which the teacher had experienced: no difficulty, some difficulty, a great amount of difficulty, no experience with this objective.

3. The cause of the difficulty encountered or reason a given objective has not been tried was indicated by checking as many of the following statements as explained the cause of her difficulty: short school period, student lacks time for home experience, lack of supplies, space, equipment, teaching materials, lack of time in the unit, or for home visiting, facilities to do home visiting, students lack muscular coordination, too advanced for students, lack means to stimulate desire of pupils to achieve, teacher lacks knowledge of subject matter, unaware of possibility.

The data were analyzed to show:

1. The relative importance of objectives

a. Classified as to achievement level, that is, as to:

- (1) recognition level
- (2) ability to do
- (3) desire to do
- (4) habit of doing

b. As related to:

- (1) maintaining satisfying surroundings
- (2) quality of food
- (3) nutrition standards
- (4) use of time and energy
- (5) use of money
- (6) personal growth

c. Quality of food products

d. Performance in preparation of food

e. Maintenance of adequate nutrition

f. Personal growth

- 2. The relative difficulty encountered in achieving objectives. The analysis was made on same basis as the above.
- 3. The relative importance of factors causing difficulty in achieving objectives.

Findings

Importance of objectives

- 1. There is marked agreement as to the importance of most of the objectives within each group as classified under the four achievement levels--recognition level, ability to do, desire to do, and habit of doing. There is however marked disagreement as to the importance of individual objectives in the following groups. (Table 3.)
 - a. On the recognition level: The objectives related to quality of food varied in importance from 7.1 to 96.7 with median of 41.1 per cent.

Table 3. Importance of groups of objectives classified on the basis of achievement levels.

Recognition level										Ability to				
Objectives related to	Item on questionnaire	Teacher rating as to importance							Item on questionnaire	Teacher rating as to importance				
		Major			Secondary					Major				
		Identified	No.	Min.	Max.	Md.	Min.	Max.		Md.	Identified	No.	Min.	Max.
			%	%	%	%	%	%			%	%	%	%
Satisfying surroundings	I-A,B,C,D,K	10	75.8	100.0	94.8	0.0	19.0	5.2	II-B,C,P,Q,R,S	7	53.3	100.0	89.7	0
Quality of food	I-G,H,I,J,L	50	7.1	96.7	41.1	3.3	66.7	42.3	II-I,J,K,L,M,N,O	37	50.0	98.3	69.6	0
Nutrition standards	I-H	1	95.1	95.0	95.1	4.9	4.9	4.9	II-E	1	100.0	100.0	100.0	0
Use of time and energy	I-E,F	2	84.7	89.7	87.2	8.6	13.6	11.1	II-A,D,G	19	55.4	100.0	79.3	0
Use of money	I-M	2	96.6	98.3	97.5	1.7	3.4	2.6	II-F,T,U	3	81.0	84.3	81.0	1
Personal growth	I-O,P	2	75.0	88.3	81.7	11.7	23.3	17.5	II-H,V	8	81.3	95.1	89.0	
		67	7.1	100.0	72.2	1.7	66.7	22.2		75	50.0	100.0	79.3	

The table should be read as follows: Only seventy-five and eight tenths per cent of the teachers considered to recognize satisfying surroundings of major importance. One hundred per cent of the teachers rated another ten is indicated by the median, that is 94.8%.

Ability to do level						Desire to do level						Habit of doing						
Teacher rating as to importance						Teacher rating as to importance						Teacher rating importance						
Item on questionnaire						Item on questionnaire						Major						
Secondary						Major						Secondary						
or						Major						Secondary						
Max. Md. Min. Max. Md. Identified No.						Min. Max. Md. Min. Max. Md. Identified						No. Min. Max. Md. M						
%						%						%						
100.0	89.7	0.0	45.0	10.3	III-A(4)	1	100.0	100.0	100.0	0.0	0.0	0.0	IV-C(5)	1	96.5	96.5	96.5	3.
98.3	69.6	0.0	39.7	22.4	III-A(2)	1	96.7	96.7	96.7	3.3	3.3	3.3	IV-A(2),C(3)	2	89.5	98.3	93.9	1.
100.0	100.0	0.0	0.0	0.0	III-A(1)	1	96.7	96.7	96.7	3.3	3.3	3.3	IV-A(1),C(1),C(4)	3	81.4	96.6	84.2	3.
100.0	79.3	0.0	35.7	17.5	III-A(5)	1	96.5	96.5	96.5	3.5	3.5	3.5	IV-D(4)	1	86.2	86.2	86.2	13.
84.3	81.0	12.3	17.3	17.3	III-A(3)	1	93.1	93.1	93.1	6.9	6.9	6.9	IV-A(3),C(2)	2	71.5	79.3	75.4	6.
95.1	89.0	3.3	10.2	6.8	III-B,C,D	7	87.3	93.9	87.5	4.1	12.7	7.1	IV-B,D(1),D(2)D(3)	4	75.4	96.5	85.3	3.
100.0	79.3	0.0	45.0	17.5		12	87.3	100.0	90.4	0.0	12.7	7.0		13	71.5	98.3	84.2	1.

is considered one of the ten objectives identified as I-A,B,C,D,K on the questionnaire relating to ability rated another one of this group of objectives as of major importance. The importance of the group of

Desire to do level										Habit of doing level							
Item on questionnaire		Teacher rating as to importance							Teacher rating as to importance								
		Major			Secondary				Major			Secondary					
ary	Md.	Identified	No.	Min.	Max.	Md.	Min.	Max.	Md.	Identified	No.	Min.	Max.	Md.	Min.	Max.	Md.
	%			%	%	%	%	%	%			%	%	%	%	%	%
0.3	III-A(4)	1	100.0	100.0	100.0	0.0	0.0	0.0	IV-C(5)	1	96.5	96.5	96.5	3.5	3.5	3.5	
2.4	III-A(2)	1	96.7	96.7	96.7	3.3	3.3	3.3	IV-A(2),C(3)	2	89.5	98.3	93.9	1.7	10.5	6.1	
0.0	III-A(1)	1	96.7	96.7	96.7	3.3	3.3	3.3	IV-A(1),C(1),C(4)	3	81.4	96.6	84.2	3.4	18.6	15.8	
7.5	III-A(5)	1	96.5	96.5	96.5	3.5	3.5	3.5	IV-D(4)	1	86.2	86.2	86.2	13.8	13.8	13.8	
17.3	III-A(3)	1	93.1	93.1	93.1	6.9	6.9	6.9	IV-A(3),C(2)	2	71.5	79.3	75.4	6.8	19.0	13.4	
6.8	III-B,C,D	7	87.3	93.9	87.5	4.1	12.7	7.1	IV-B,D(1),D(2)D(3)	4	75.4	96.5	85.3	3.5	22.8	9.2	
17.5		12	87.3	100.0	90.4	0.0	12.7	7.0		13	71.5	98.3	84.2	1.7	22.8	10.5	

the ten objectives identified as I-A,B,C,D,K on the questionnaire relating to ability
 this group of objectives as of major importance. The importance of the group of

b. On the ability to do level:

- (1) The objectives relating to satisfying surroundings varied in importance from 53.3 to 100. with median of 89.7 per cent.
- (2) The objectives related to quality of foods varied in importance from 50. to 98.3 with median of 69.6 percent.
- (3) The objectives related to use of time and energy varied in importance from 55.4 to 100 with median of 79.3 per cent.

2. There is considerable difference as to the importance of objectives classified under the four levels of achievement. (Table 3 and Figure 1 to 6)

a. Those concerned with development of a desire to do were considered of major importance as indicated by rating of from 87.5 to 100 with median of 90.4 per cent.

b. Following closely come those concerned with developing habits of doing as shown by rating of 75.4 to 96.5 with median of 84.2 per cent.

c. Considerably lower in importance come the objectives classified on the two levels—developing the ability to do, and ability to recognize. They were rated in above order from 69 to 100 with median of 79.3 per cent and from 41.1 to 97.5 with median of 72.2 per cent.

3. There was also considerable difference as to the importance of the objectives in the six groups. (Table 3).

Figure 1. Difficulty experienced as compared with importance of objectives related to satisfying surroundings classified on four achievement levels.

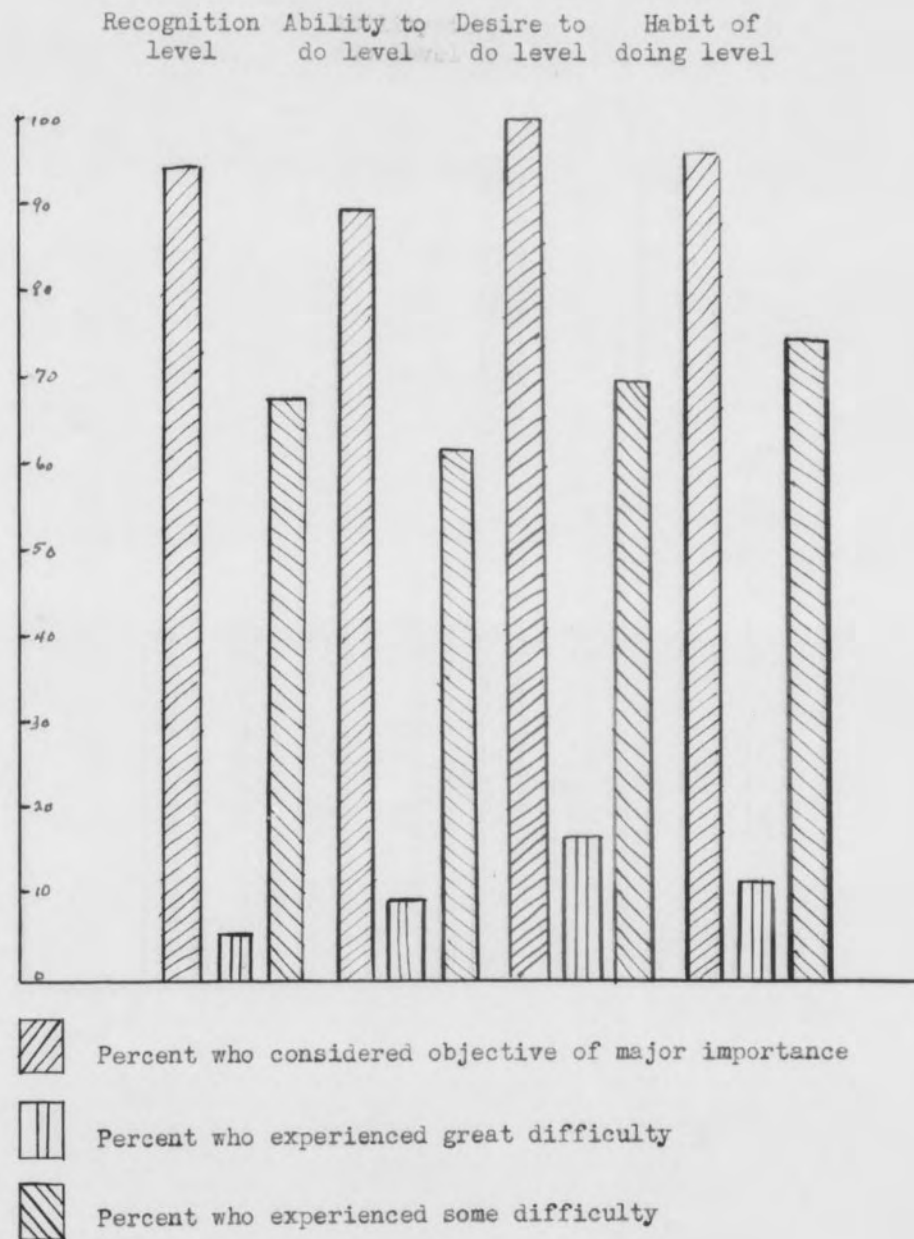


Figure 2. Difficulty experienced as compared with importance of objectives related to quality of food classified on four achievement levels.

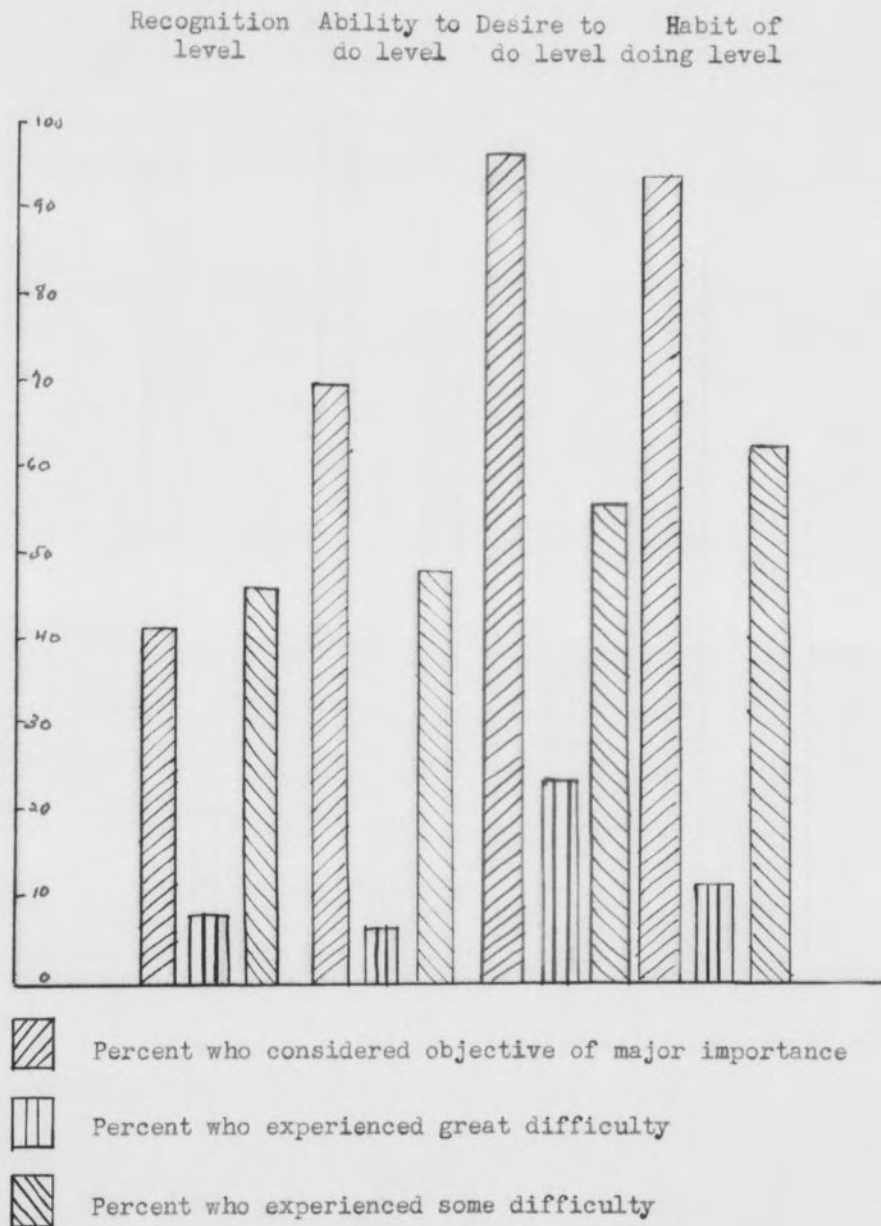


Figure 3. Difficulty experienced as compared with importance of objectives related to nutrition standards classified as to four achievement levels.

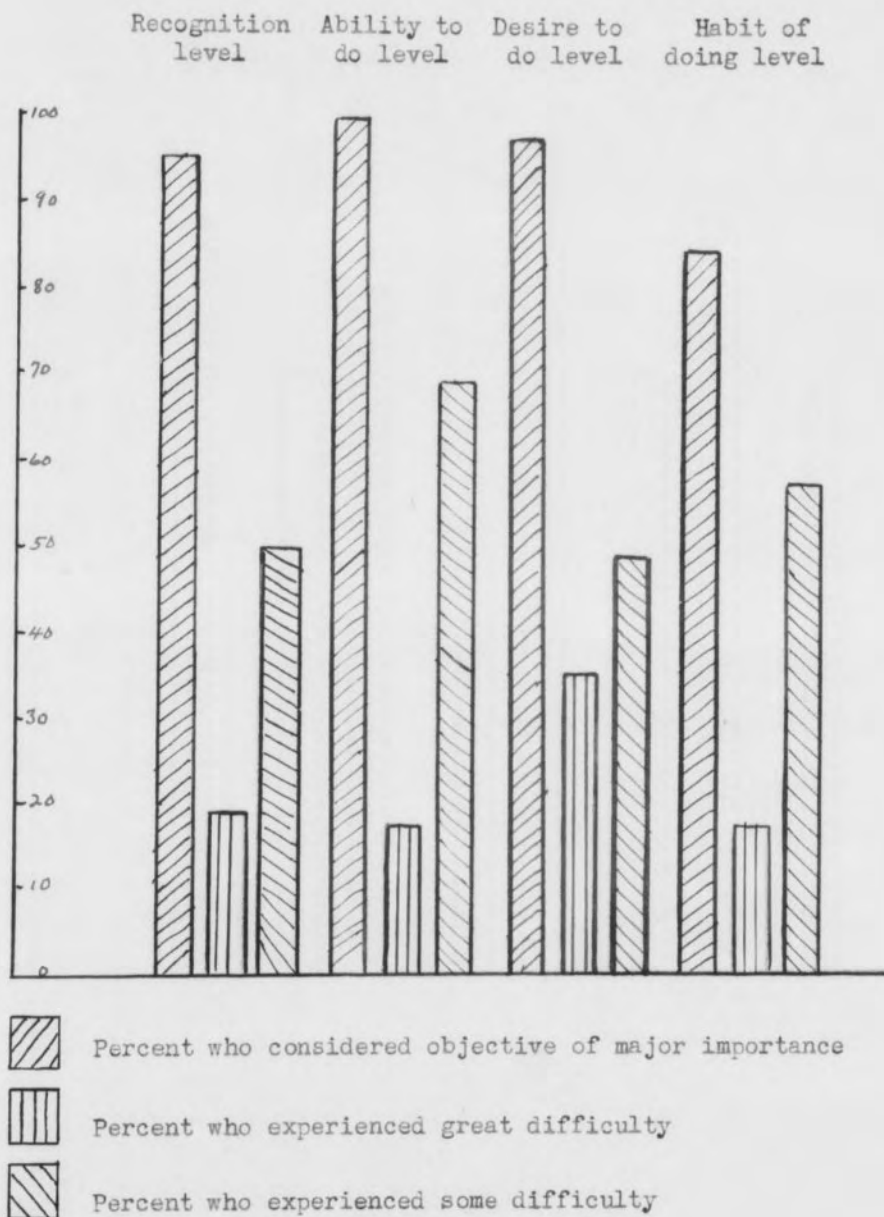


Figure 4. Difficulty experienced as compared with importance of objectives related to use of time and energy.

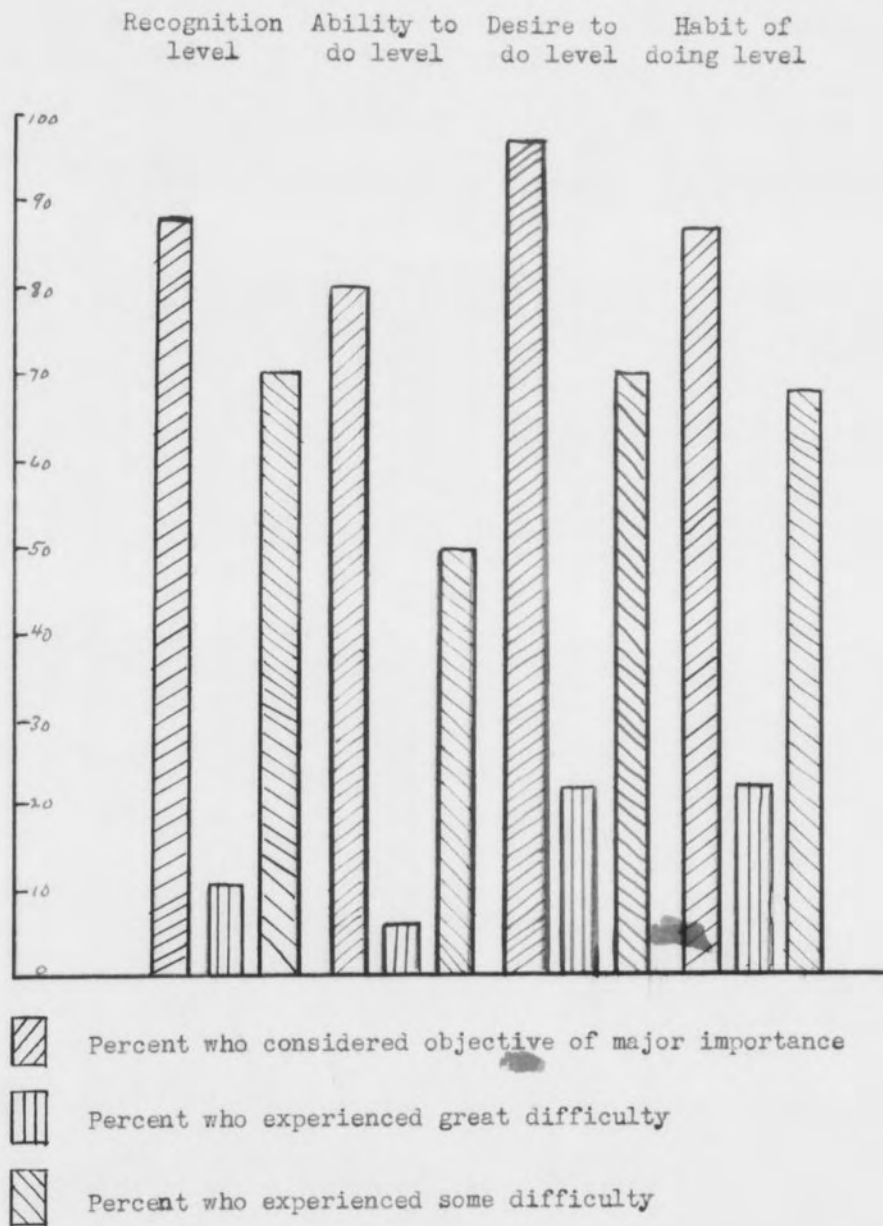


Figure 5. Difficulty experienced as compared with importance of objectives related to use of money classified as to four achievement levels.

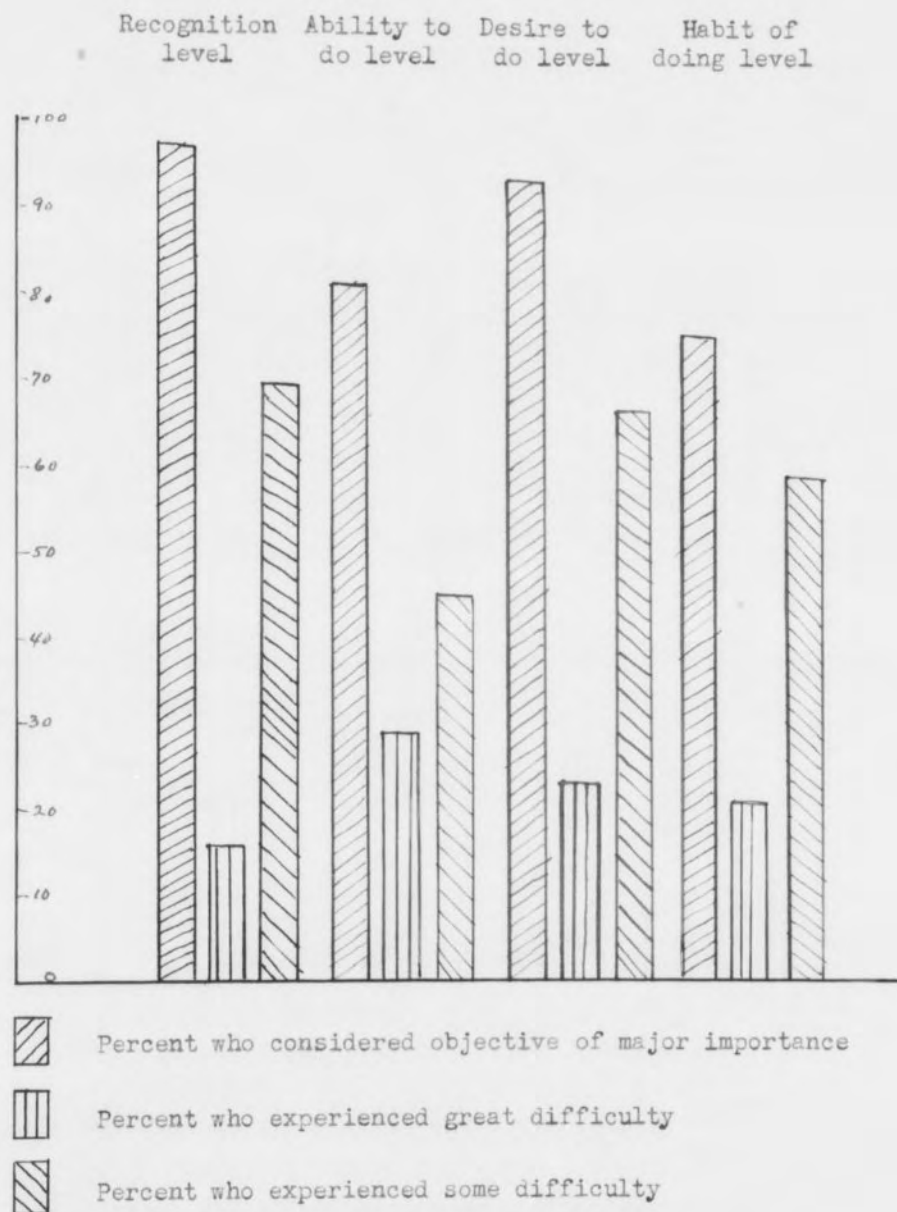
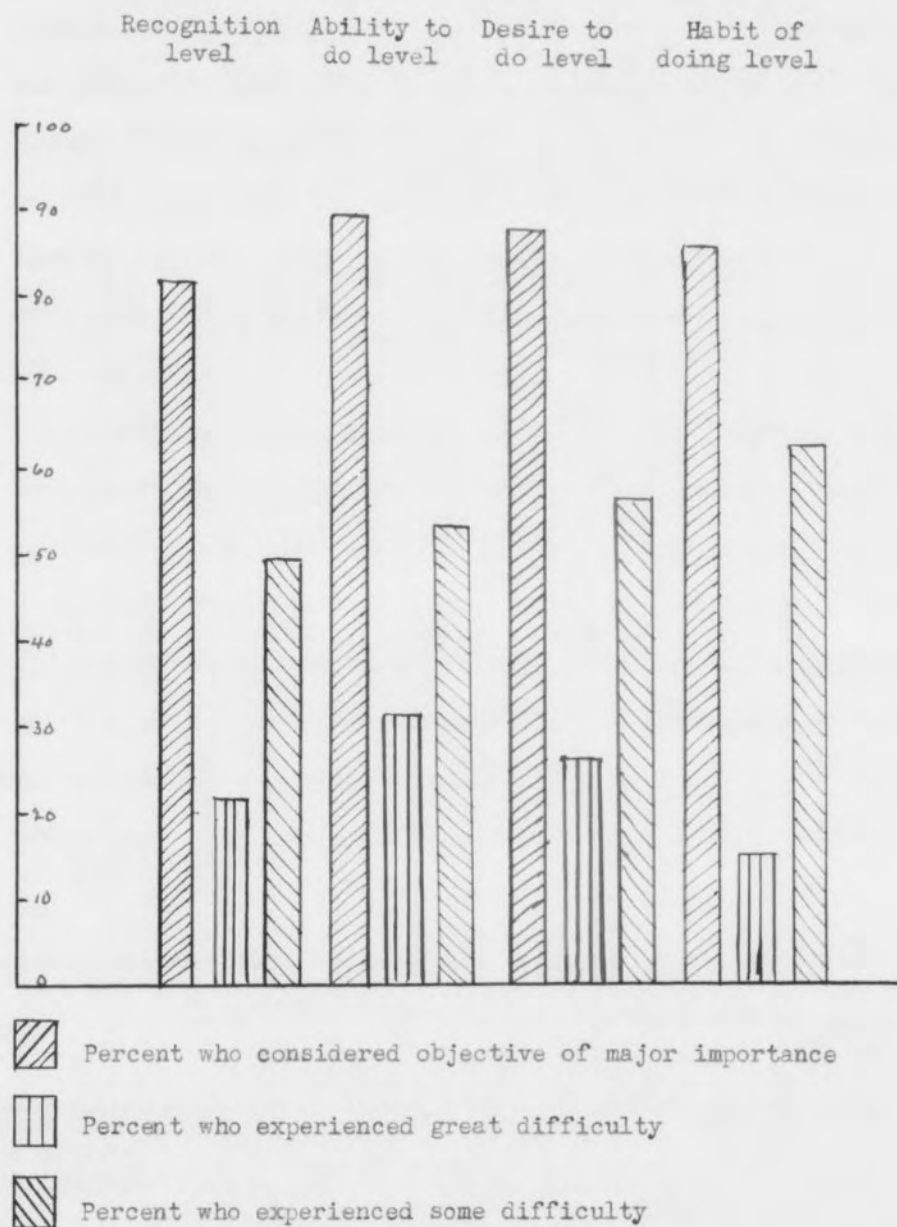


Figure 6. Difficulty experienced as compared with importance of objectives related to personal growth classified as to the four levels of achievement.



- a. Those related to satisfactory surroundings and nutrition standards are of first importance, the former having median rating on various achievement levels from 89.7 to 100 with a mean of 95.2 per cent, the latter from 84.2 to 100 with a mean of 94 per cent.
 - b. The objectives related to use of time and energy, use of money, personal growth are next in importance being rated in above order from 79.3 to 96.5 with mean of 87.3 per cent, from 75.4 to 97.5 with mean of 86.7 per cent, and from 81.7 to 89. with mean of 85.9 per cent.
 - c. The objectives related to quality of food are of considerably less importance as indicated by rating of 41.1 to 96.7 with mean of 75.4 per cent.
4. There was also considerable difference of opinion as to the importance of objectives in some of the groups. This was especially noticeable in the groups classified under recognition of quality of food product and performance in preparing food.

Table 4. Importance of objectives relating to recognition of quality of food products

Objectives related to	item on questionnaire	Teacher rating as to importance						
		Identified	Major			secondary		
			No.	Min.	Max.	Md.	Min.	Max.
			%	%	%	%	%	%
Varieties or species and kinds of food	I-G(1-21),H(1-3)	24	7.1	50.8	28.5	40.7	66.7	51.7
Quality of raw pro- ducts	I-I(1-13),L(1-3)	16	29.3	96.7	78.0	3.3	47.5	18.6
Quality of prepared products	I-J(1-9)	10	69.5	83.3	73.5	11.7	23.3	17.5
		50	7.1	96.7	41.1	3.3	66.7	45.3

- a. Although there is marked agreement as to the importance of being able to recognize quality of cooked products (69.5 to 83.3 with median of 73.5 per cent) there is much difference of opinion as to the importance of recognizing quality of raw products (29.3 to 96.7, median 78 per cent) and recognizing varieties, species and kinds of food (7.1 to 50.8, median 28.5 per cent)(Table 4 and Figure 7.)
- b. There is also considerable difference as to the importance of specific items in some of the groups.
 1. The ability to recognize varieties or species of food products as potatoes, apples, beans, peas, peaches, sweet potatoes, and fish is rated much more important than others as cantaloupes, okra, and plums. (Appendix p.3)
 2. The ability to recognize quality of fresh vegetables and fruits, the kind, cut and quality of meat were considered as of major importance by more than 90 per cent, thus ranking considerably higher than staples, canned fruit and vegetables, butter and eggs. (Appendix p.3)
- c. That the teachers' judgement that ability of students to work independently in the preparation of food is of minor importance is shown by the fact that they were rated as 32.1 to 98.3, median 69.0 per cent as compared with the objectives related to manipulative techniques 55.4 to 100, median 89.8 per cent and to follow instructions 91.5 to 95.1, median 95.0 per cent.
(Table 5 and figure 8)

Table 5. Importance of objectives relating to performance in preparing food.

Objectives related to	Items on Questionnaire	Teacher rating as to importance					
		Major			Secondary		
		Identified	No.	Min. %	Max. %	Md. %	Md. %
Manipulative techniques	II A(1-16),B,C,D,19		55.4	100.0	89.8	0.0	35.7
Follow instructions	II H (1-3)		3	91.5	95.1	95.0	3.3
Independence	II G (1-2),I(1-6) J,K,L,M		31	32.1	98.3	69.6	0.0
			53	32.1	100.0	75.4	3.3

d. Of the objectives related to preparation of food those concerned with judging causes of failure, planning sequence of work in meal preparation, skill in many of the techniques were rated by 80 to 100 per cent of the teachers as important. Those more closely related to management, as judging what quality of raw products to use for various purposes, what type of product to make under different conditions, were considered important by about two thirds of the group. (Appendix p.3)

e. In the above group, planning sequence of work in preparing a whole meal is rated more important than making an individual dish; working neatly and orderly than quickly and quietly; analyzing the proportions and directions for a recipe, than the analysis of the ingredients, number of servings, cost, substitution of ingredients and adjustment of recipe to number served. (Appendix p.3)

5. Marked agreement was found as to the importance of objectives in some groups, especially those related to maintaining adequate nutri-

tion and pupil growth. (Table 6 and Figures 9)

- a. The ability to recognize signs of good nutrition, the desire to practice and the habits of practicing good nutrition habits, also the ability to plan well balanced meals were rated by from 95 to 100 per cent of teachers as of major importance. However, only 81 to 84 per cent considered it equally important that pupils be able to plan meals at low cost, to assume responsibility for planning meals at home or for helping members of the family form good nutrition habits. (Appendix p.3)

Table 6. Importance of objectives related to ability to maintain adequate nutrition

Objectives related to	Items on Questionnaire	Teacher rating as to importance						
		Major			Secondary			
		Identified	No.	Min. %	Max. %	Med. %	Min. %	Max. %
Recognize signs of good nutrition	I N	1	95.1	95.1	95.1	4.9	4.9	4.9
Ability to plan	II E,F.	2	84.3	100.0	92.4	0.0	12.3	6.2
Desire to practice	III A (1)	1	96.7	96.7	96.7	3.3	3.3	3.3
Habit of practicing	IV A(1),C(1),(4)	3	81.4	96.6	84.2	3.4	18.6	15.8
		7	81.4	100.0	95.1	0.0	18.6	4.9

Table 7. Importance of objectives related to personal growth of the pupil.

Objectives related to	Item on Questionnaire	Teacher rating as to importance						
		Major			Secondary			
		Identified	No.	Min. %	Max. %	Med. %	Min. %	Max. %
Human relation-ship	I O, III B,D,IVB, D(1-4)	8	75.4	96.5	87.8	3.5	22.8	11.5
Self Education	I P, II V(1-5), III C(1-5)	11	75.0	96.5	86.3	5.1	23.3	10.2
		19	75.0	96.5	87.0	3.5	23.3	10.5

- b. The objectives related to the growth of pupils in terms of human

relations and self education were considered of major importance by more than three-fourths of the teachers.

- c. Although it was considered by more than 80 per cent of the teachers important that pupils should be able to recognize evidences of nice human relationships, to analyze causes of success in achieving them and have the desire to improve them, somewhat less than two thirds considered it important that they should cooperate with their family in some of those activities through which such family relationships can be developed. (Appendix p.3)
- d. Teachers believe that they have a major responsibility for helping pupils learn how to study. It is shown by the fact that developing the ability of pupils to recognize good learning techniques and developing desire and ability to assume responsibility for own learning were rated as major objectives by from 80 to 90 per cent of the teachers. (Appendix p. 3)

Difficulties encountered in achieving objectives.

- 1. There is fairly close agreement as to the difficulties encountered in achieving each group of objectives classified under the four levels of achievement. (Table 8 and Figure 1-6)
- 2. In general, little difficulty has been encountered by the teachers. In only a few cases did as many as one-third have "great" difficulty with any group. These difficulties were with the objectives related to personal growth on the ability-to-do level, and nutrition standards on the desire-to-do level. (Table 8, Figure 1-6)
- 3. "Some" difficulty was reported by from approximately 55 to 80 per

Table 8. Amount of difficulty encountered in the achieving of a group of objectives classified on the basis

Recognition level										Ability to do level							
Item on questionnaire		Teacher rating as to amount of difficulty								Item on questionnaire		Teacher rating as to amount of difficulty					
		Great Amount				Some						Great Amount			Some		
Objective related to	Identified	No.	Min. %	Max. %	Md. %	Min. %	Max. %	Md. %	Identified	No.	Min. %	Max. %	Md. %	Min. %	Max. %		
Satisfying surroundings	I-A,B,C,D,K	10	0.0	21.6	5.3	48.0	75.9	67.6	I-B,C,P,Q,R,S	7	1.8	19.6	9.1	14.8	81.0		
Quality of food	I-G,H,I,J,L	50	0.0	29.8	7.7	26.9	69.2	45.4	II-I,J,K,L,M,N,O	37	1.9	24.5	5.9	32.0	72.5		
Nutrition standards	I-N	1	18.5	18.5	18.5	50.0	50.0	50.0	II-E	1	16.7	16.7	16.7	68.5	68.5		
Use of time and energy	I-E,F	2	5.5	14.5	10.0	67.3	72.7	70.0	II-A,D,G	19	0.0	30.6	5.3	37.5	84.0		
Use of money	I-M	2	14.0	17.2	15.6	65.6	72.0	68.8	II-F,T,U	3	19.6	30.9	28.3	43.4	58.8		
Personal growth	I-O,P	2	18.9	24.1	21.5	49.0	50.0	49.5	II-H,V	8	9.1	38.0	31.1	38.5	69.1		
		67	0.0	29.8	7.7	26.9	75.9	50.9		75	0.0	38.0	7.5	14.8	84.0		

on the basis of achievement levels.

on the basis of achievement level.																		
Level				Desire to do level								Habit of doing level						
as to ability				Item on questionnaire	Teacher rating as to amount of difficulty				Item on questionnaire				Teacher rating as to amount of difficulty					
Some					Great Amount		Some				Great Amount		Some					
Min.	Max.	Md.	Identified	No.	Min.	Max.	Md.	Min.	Max.	Md.	Identified	No.	Min.	Max.	Md.	Min.	Max.	Md.
$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$			$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$			$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
14.8	81.0	61.8	III-A(4)	1	16.4	16.4	16.4	69.1	69.1	69.1	IV-C(5)	1	10.9	10.9	10.9	74.6	74.6	74.6
32.0	72.5	48.0	III-A(2)	1	23.7	23.7	23.7	55.9	55.9	55.9	IV-A(2)C(3)	2	9.4	12.5	11.0	60.7	64.2	62.5
68.5	68.5	68.5	III-A(1)	1	35.1	35.1	35.1	49.1	49.1	49.1	IV-A(1)C(1)C(4)	3	9.3	22.2	17.8	55.4	59.3	57.4
37.5	84.0	49.0	III-A(5)	1	21.2	21.2	21.2	69.2	69.2	69.2	IV-D(4)	1	21.6	21.6	21.6	66.7	66.7	66.7
43.4	58.8	45.5	III-A(3)	1	22.6	22.6	22.6	66.0	66.0	66.0	IV-A(3),C(2)	2	18.5	23.5	21.0	55.5	60.8	58.2
38.5	69.1	53.5	III-B,C,D	7	18.6	31.4	26.0	52.9	74.4	56.9	IV-B,D(1)D(2)D(3)	4	3.8	15.9	12.2	56.8	62.7	62.4
14.8	84.0	58.8		12	16.4	35.1	24.9	49.1	74.4	58.0		13	3.8	23.5	12.5	55.4	74.6	60.8

the achievement of one of the ten objectives identified as I-A,B,C,D,E on the questionnaire relating to the objectives in that group. The median per cent of difficulty for the group of ten objectives was 5.3%.

cent of the teachers with the objectives under each of the four levels. (Table 8, Figure 1-6)

4. There is little difference in the amount of difficulty experienced in the six groups of objectives. Those related to the use of time and energy and use of money were somewhat more difficult than other groups. (Table 8, Figure 1-6)
5. There is but little difference as to the difficulty encountered with objectives classified under recognizing quality of food products. Slightly less difficulty was reported in developing the ability to recognize varieties, kinds and species of food than is encountered in recognizing quality of raw and prepared foods. (Table 9 and Figure 7) This is in part explained by the fact that from 25 to 50, median 35 per cent, reported "no experience" with that group of objectives.

Table 9. Difficulties experienced with objectives related to recognition of quality of food products.

Objectives related to	Item on Questionnaire	Teacher rating as to amount of difficulty						
		Great			Some			
		Identified						
		No.	Min. %	Max. %	Md. %	Min. %	Max. %	Md. %
Varieties, Species, kinds of food	I G(1-21), H(1-3)	24	5.4	27.6	8.0	26.9	50.9	32.7
Quality of raw products	I I(1-13), L(1-3)	16	3.7	29.8	11.1	45.1	69.2	55.4
Quality of pre- pared products	I J(1-9)	10	0.0	7.8	4.9	27.2	63.5	55.8
		50	0.0	29.8	7.7	26.9	69.2	45.4

6. As a whole, little difficulty was encountered with the three groups of objectives classified under performance ability in preparing food. (Table 10 and Appendix p. 3)

Figure 7. Difficulty experienced as compared with importance of objectives related to the three phases of recognition of quality of food products.

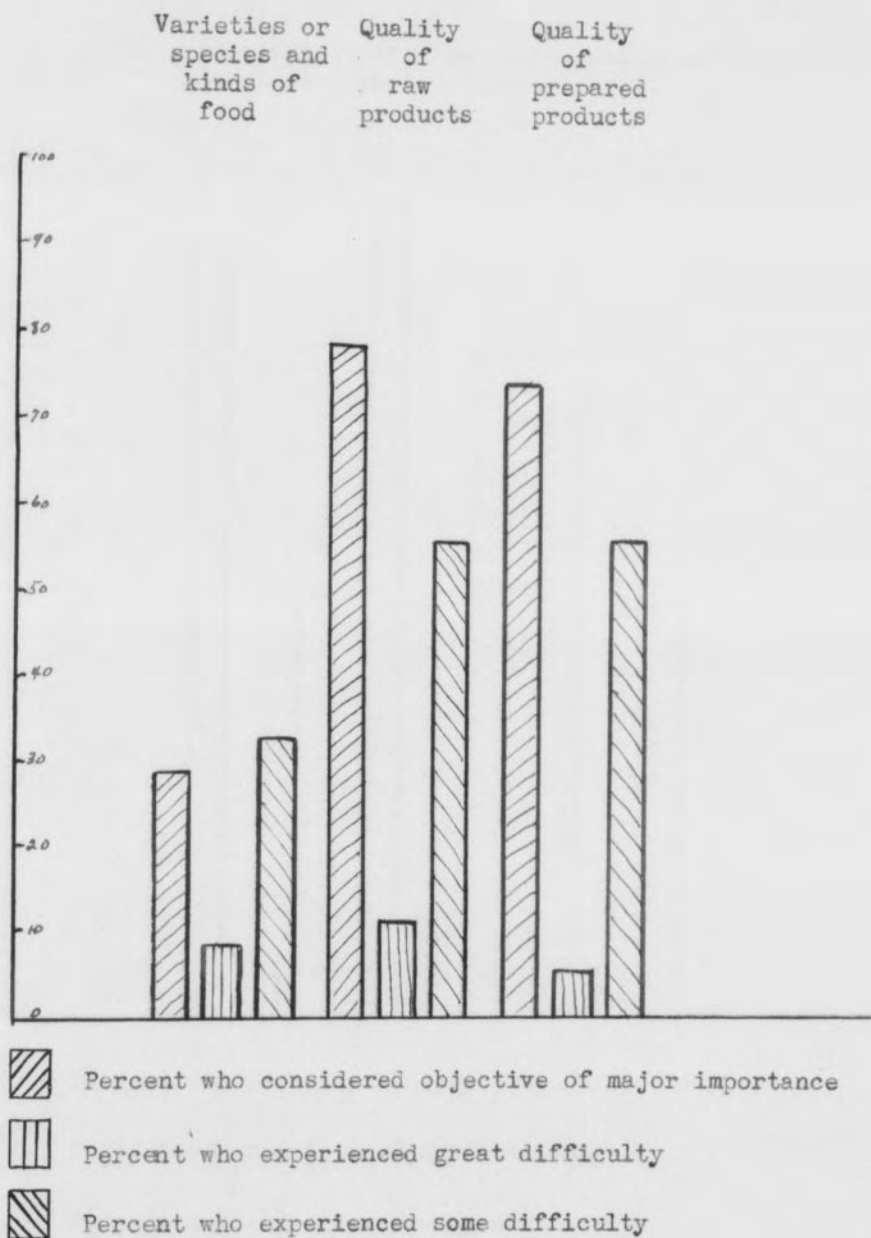


Figure 8. Difficulty experienced as compared with importance of objectives related to the three phases of performance in preparing food.

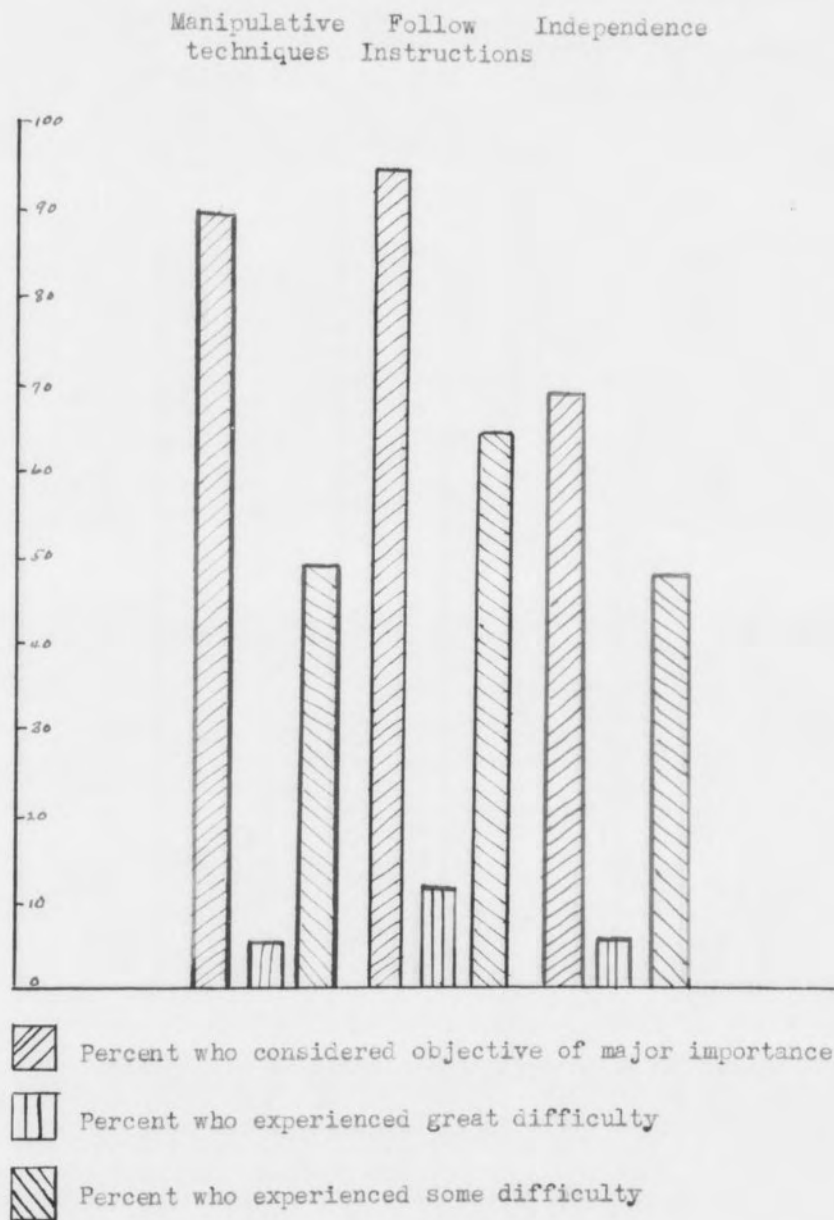
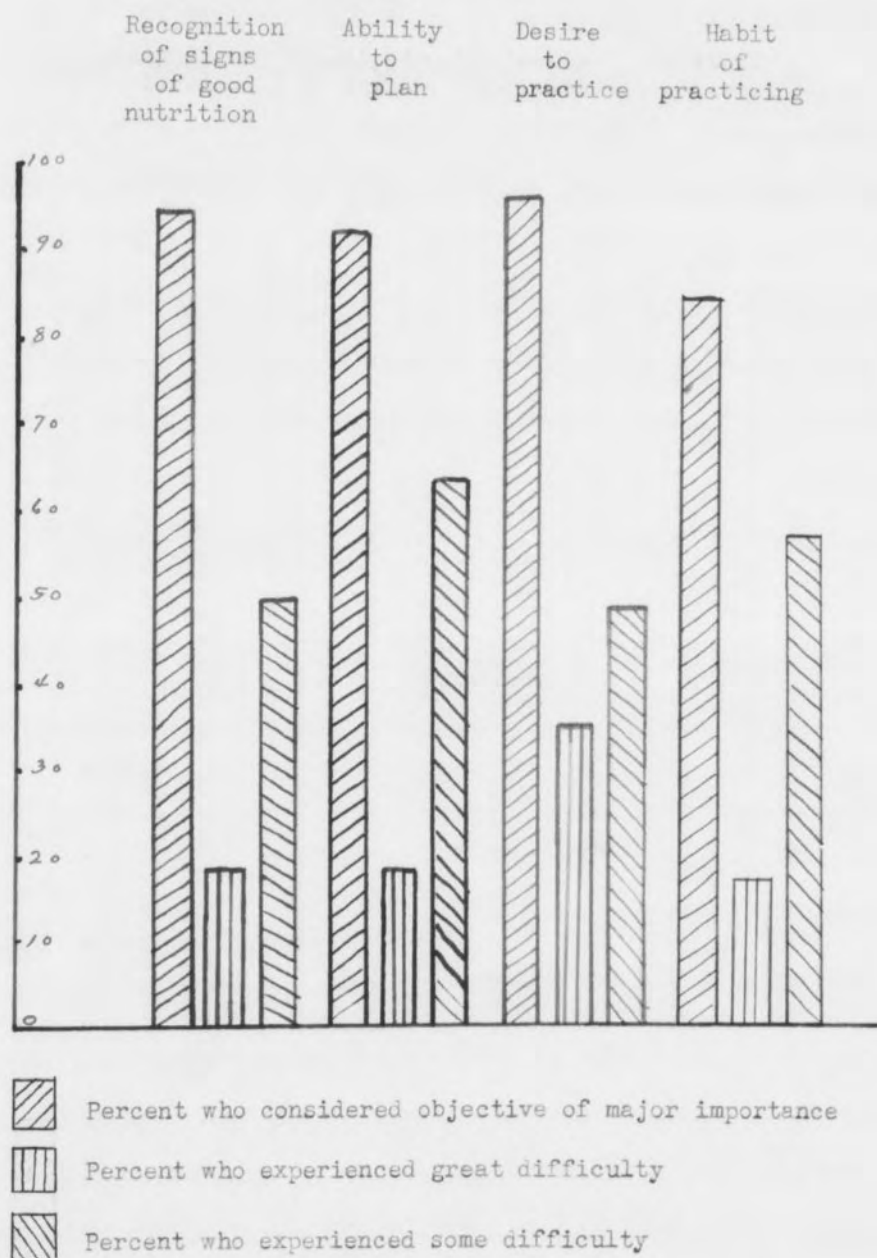


Figure 9. Difficulty experienced as compared with importance of objectives related to maintenance of adequate nutrition classified as to four phases.



- a. It appears to be more difficult to develop ability to work quickly, quietly and neatly than to do the various manipulative techniques. (Median of 90 versus 53 per cent)
- b. The objectives in which some managerial ability is needed cause some difficulty. About three-fourths of the group report some difficulty with objectives related to planning sequence of work in meal preparation and preparation of individual dishes, wise selection of utensils, causes of failure, analyzing recipes, and from one-half to two-thirds with when to use various qualities of food.

Table 10. Difficulties experienced with objectives related to performance in preparing food.

Objectives related to	Items on Questionnaire	Teacher rating as to amount of difficulty						
		Great			Some			
		No.	Min.	Max.	Md.	Min.	Max.	Md.
	Identified		%	%	%	%	%	%
Manipulative techniques	II A(1-16),B,8,D	19	0.0	30.6	5.3	37.5	84.0	49.0
Follow instructions	II H(1-3)	3	9.1	14.3	11.5	38.5	69.1	64.3
Independence	II G(1-2),H(1-6)							
	J,K,L,M	31	1.9	18.9	5.9	32.0	72.5	48.0
		53	0.0	30.6	6.0	32.0	84.0	48.1

7. There is considerable evidence of difficulty with various objectives related to maintaining adequate nutrition. The most difficult seems to be to develop the desire to practice good nutrition habits, which caused great difficulty to 35 per cent and some difficulty to 50 per cent. (Table 11.) The least difficulty encountered is with recognition of signs of good nutrition 68.5 per cent. Planning of adequate

meals at low cost, the habit of following good nutrition practices, and helping improve family dietary caused some difficulty for about 80 per cent.

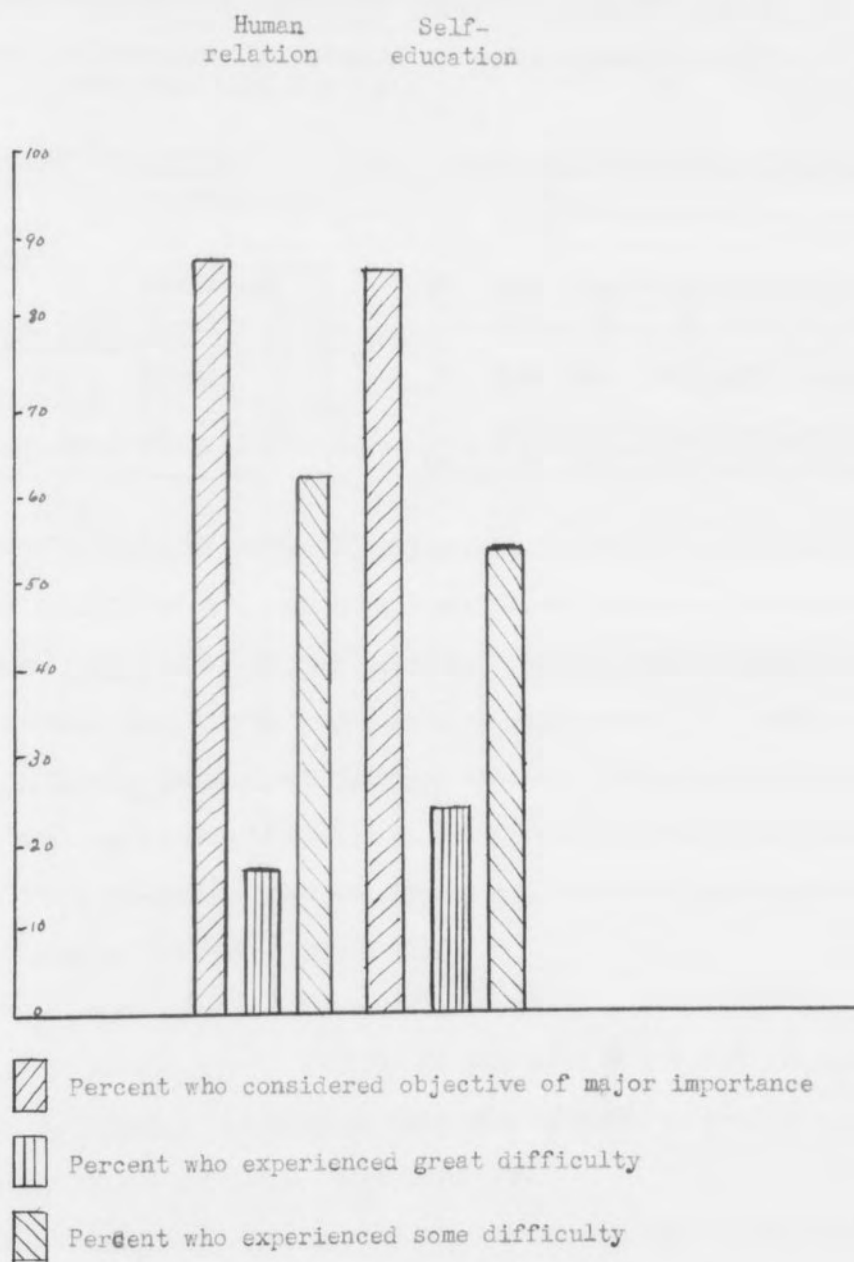
Table 11. Difficulties experienced with objectives related to maintenance of adequate nutrition.

Objectives related to	Item in Questionnaire	Teacher rating as to amount of difficulty						
		Great			Some			
		Identified	No.	Min. %	Max. %	Md. %	Min. %	Max. %
Recognize signs of good nutrition	I N	1	18.5	18.5	18.5	50.0	50.0	50.0
Ability to plan	II E.F	2	16.7	19.6	18.2	58.8	68.5	63.7
Desire to practice	III A.(1)	1	35.1	35.1	35.1	49.1	49.1	49.1
Habit of practicing	IV A(1),C(1), (4)	3	9.3	22.2	17.8	55.4	59.3	57.4
		7	9.3	35.1	18.5	50.0	68.5	57.4

8. Difficulty had been experienced by more than three-fourths of the teachers with the objectives related to the personal growth of the pupils. (Table 12 and figure 10)

- a. Seventy-five per cent find it difficult to develop the ability of students to even recognize good learning techniques. More than eighty percent have some difficulty in developing the ability or even the desire to assume responsibility for self education. It is especially significant that "great" difficulty was experienced by a larger percent of teachers with these than with other group of objectives. (Appendix p.3)
- b. Slightly fewer teachers experienced great difficulty with objectives classified as related to human relationships than those related to self education. The development of the

Figure 10. Difficulty experienced as compared with importance of objectives related to two phases of personal growth.



ability to understand cause of success or failure in human relationships was especially difficult. (Appendix p.3)

Table 12. Difficulties experienced with objectives related to Fostering Pupil Growth.

Objectives related to	Item on Questionnaire	Teacher rating as to amount of difficulty							
		Great				Some			
		Identified	No.	Min. %	Max. %	Md. %	Min. %	Max. %	Md. %
Human relations	I O, III B, D, IV B, D(1-4)	8	3.8	21.6	17.3	49.0	74.4	62.4	
Self Education	I P, II V(1-5), III C (1-5)	11	9.3	38.0	24.1	48.0	74.6	54.0	
		19	3.8	38.0	18.9	49.0	74.6	57.4	

Cause of difficulty in achieving objectives.

1. Many conditions were responsible for the difficulties encountered in recognizing quality of food products. Lack of food supplies and insufficient time in the home economics program were the chief causes of difficulty in 46.7 and 37.4 per cent of the cases. From 14 to 30 per cent explained difficulty as due to lack of pupil time at school and home, inadequate physical plant, not suited to pupil ability, or inability of teacher. (Table 13).
2. Lack of pupil time at school and home caused much more serious difficulty in developing the ability to recognize quality of prepared foods than in learning to recognize varieties of foods or even to recognize quality of raw products. (Appendix p.3)
3. On the other hand, lack of food supplies caused difficulty for more than 50 per cent in developing ability to recognize either varieties

Table 13. Causes of difficulty encountered in achieving or reasons an attempt has not been made to achieve classified on the basis of achievement levels.

		Recognition Level															
	Item on questionnaire		Lack of time at home or school				Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objective to pupils	
Objective related to	Identified	No.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	
			%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Satisfying surroundings	I-A,B,C,D,K	10	25.5	70.8	39.4	0.0	12.8	4.7	20.8	97.4	65.3	12.5	35.9	17.7	13.2	27	
Quality of food	I-G,H,I,J,L	50	12.2	58.8	29.0	16.7	61.5	46.7	8.6	38.9	21.4	11.9	46.2	37.3	2.7	28	
Nutrition Standards	I-N	1	15.6	15.6	15.6	9.4	9.4	9.4	18.8	18.8	18.8	21.9	21.9	21.9	25.0	25	
Use of time and energy	I-E,F	2	25.0	56.5	40.8	6.3	6.5	6.4	41.3	79.2	50.3	13.0	20.8	16.9	14.6	23	
Use of money	I-M	2	56.1	58.1	57.1	11.6	19.5	15.6	12.2	14.0	13.1	23.3	24.4	23.9	19.5	21	
Personal growth	I-O,P	2	2.6	6.7	4.7	0.0	15.4	7.7	3.3	28.2	15.8	12.8	26.7	19.8	40.0	53	
		67	2.6	70.8	29.6	0.0	65.5	42.6	3.3	97.4	24.4	11.9	46.2	35.4	2.7	53	

		Ability To Do Level															
	Item on questionnaire		Lack of time at home or school				Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objective to pupils	
Objective related to	Identified	No.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	
			%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Satisfying surroundings	II-B,C,P,Q,R,S	7	32.5	68.2	51.4	0.0	8.1	0.0	24.3	64.7	38.9	7.5	46.0	18.1	2.9	3	
Quality of food	II-I,J,K,L,M,N,O	37	26.1	85.7	41.9	0.0	43.6	10.7	2.9	111.0	18.8	7.0	35.6	23.6	5.4	3	
Nutrition standards	II-E	1	32.6	32.6	32.6	6.5	6.5	6.5	10.9	10.9	10.9	19.6	19.6	19.6	17.4	1	
Use of time and energy	II-A,D,G	19	37.8	76.7	46.7	0.0	40.8	0.0	0.0	44.4	7.9	11.4	33.3	24.5	12.1	9	
Use of money	II-F,T,U	3	38.1	47.7	43.6	0.0	15.7	2.4	11.9	15.9	15.4	23.8	29.6	28.2	2.4	2	
Personal growth	II-H,V	8	18.2	35.7	26.2	0.0	4.6	1.2	2.4	14.3	8.1	2.4	21.4	18.4	16.3	2	
		75	18.2	85.7	42.4	0.0	43.6	4.8	0.0	111.0	15.4	2.4	46.0	21.7	2.4	9	

The table should be read as follows: Twenty-five and five tenths per cent of the teachers considered "Lack of time at home or school" the cause of their not achieving one of the ten objectives identified as I-A,B,C,D,K on the questionnaire. Seventy and eight tenths considered this the cause in relation to some other one. The median per cent of teachers who believed this to be the cause was 39.4.

difficulty encountered in achieving or reasons an attempt has not been made to achieve a group of objectives on the basis of achievement levels.

on the basis of achievement level.																				
Item on questionnaire		Recognition Level																		
		Lack of time at home or school				Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objective to pupil			Inability of teacher		
		No.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.
Identified	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
I-A,B,C,D,K	10	25.5	70.8	39.4	0.0	12.8	4.7	20.8	97.4	65.3	12.5	35.9	17.7	13.2	27.1	18.1	10.4	30.0	18.6	
I-G,H,I,J,L	50	12.2	58.8	29.0	16.7	61.5	46.7	8.6	38.9	21.4	11.9	46.2	37.3	2.7	28.9	18.3	2.6	38.5	14.3	
I-N	1	15.6	15.6	15.6	9.4	9.4	9.4	18.8	18.8	18.8	21.9	21.9	21.9	25.0	25.0	25.0	31.3	31.3	31.3	
I-E,F	2	25.0	56.5	40.8	6.3	6.5	6.4	41.3	79.2	50.3	13.0	20.8	16.9	14.6	23.9	19.3	14.6	17.4	16.0	
I-M	2	56.1	58.1	57.1	11.6	19.5	15.6	12.2	14.0	13.1	23.3	24.4	23.9	19.5	21.3	20.4	19.5	20.9	20.2	
I-O,P	2	2.6	6.7	4.7	0.0	15.4	7.7	3.3	28.2	15.8	12.8	26.7	19.8	40.0	53.8	46.9	2.6	40.0	21.3	
	67	2.6	70.8	29.6	0.0	65.5	42.6	3.3	97.4	24.4	11.9	46.2	35.4	2.7	53.8	18.8	2.6	40.0	16.7	

Item on questionnaire Identified	Ability To Do Level																		
	Lack of time at home or school				Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objective to pupil			Inability of teacher		
	No.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.
		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
II-B,C,P,Q,R,S	7	32.5	68.2	51.4	0.0	8.1	0.0	24.3	64.7	38.9	7.5	46.0	18.1	2.9	34.1	17.9	7.1	24.3	16.7
II-I,J,K,L,M,N,O	37	26.1	85.7	41.9	0.0	43.6	10.7	2.9	111.0	18.8	7.0	35.6	23.6	5.4	33.3	14.3	7.0	41.9	21.1
II-E	1	32.6	32.6	32.6	6.5	6.5	6.5	10.9	10.9	10.9	14.6	19.6	19.6	17.4	17.4	17.4	21.7	21.7	21.7
II-A,D,G	19	37.8	76.7	46.7	0.0	40.8	0.0	0.0	44.4	7.9	11.4	33.3	24.5	12.1	90.9	35.6	4.1	26.7	16.7
II-F,T,U	3	38.1	47.7	43.6	0.0	15.7	2.4	11.9	15.9	15.4	23.8	29.6	28.2	2.4	25.0	12.9	18.0	21.4	20.5
II-H,V	8	18.2	35.7	26.2	0.0	4.6	1.2	2.4	14.3	8.1	2.4	21.4	18.4	16.3	25.0	19.0	16.7	60.7	35.2
	75	18.2	85.7	42.4	0.0	43.6	4.8	0.0	111.0	15.4	2.4	46.0	21.7	2.4	90.9	38.6	4.1	60.7	20.0

be read as follows: Twenty-five and five tenths per cent of the teachers considered "Lack of time at home or of their not achieving one of the ten objectives identified as I-A,B,C,D,K on the questionnaire relating to findings. Seventy and eight tenths considered this the cause in relation to some other one of the objectives. of teachers who believed this to be the cause was 39.4.

Table 13. (Continued). Causes of difficulty encountered in achieving or reasons an attempt has not been classified on basis of achievement levels.

		Desire to Do Level													
Objectives related to	Item on questionnaire	No.	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Sum of
			Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	
			\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
Satisfying surroundings	III-A(4)	1	60.9	60.9	60.9	0.0	0.0	0.0	13.0	13.0	13.0	30.4	30.4	30.4	17.
Quality of food	III-A(2)	1	55.1	55.1	55.1	4.1	4.1	4.1	8.2	8.2	8.2	12.2	12.2	12.2	12.
Nutrition standards	III-A(1)	1	43.8	43.8	43.8	4.2	4.2	4.2	6.3	6.3	6.3	16.7	16.7	16.7	12.
Use of time and energy	III-A(5)	1	28.2	28.2	28.2	0.0	0.0	0.0	7.7	7.7	7.7	25.6	25.6	25.6	15.
Use of money	III-A(3)	1	70.8	70.8	70.8	8.3	8.3	8.3	4.2	4.2	4.2	37.5	37.5	37.5	16.
Personal growth	III-B,C,D	7	12.2	25.0	13.5	0.0	9.8	0.0	0.0	10.8	9.8	13.9	29.3	15.6	7.
		12	12.2	70.8	22.8	0.0	9.8	0.0	0.0	13.0	8.1	12.2	37.5	20.2	7.
		Habit of Doing Level													
Objectives related to	Item on questionnaire	No.	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Sum of
			Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	
			\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
Satisfying surroundings	IV-C(5)	1	50.0	50.0	50.0	0.0	0.0	0.0	11.4	11.4	11.4	15.9	15.9	15.9	29.
Quality of food	IV-A(2), C(3)	2	65.9	92.5	79.2	6.8	10.0	8.4	18.2	20.0	19.1	20.0	27.3	23.7	25.
Nutrition standards	IV-A(1),C(1),C(4)	3	35.6	76.7	47.8	6.7	8.7	7.0	2.2	15.2	2.3	18.6	23.9	20.0	21.
Use of time and energy	IV-D(4)	1	45.0	45.0	45.2	2.5	2.5	2.5	10.0	10.0	10.0	15.0	15.0	15.0	37.
Use of money	IV-A(3),C(2)	2	63.0	71.7	67.4	4.4	6.5	5.5	6.5	8.7	7.6	17.4	17.4	17.4	26.
Personal growth	IV-B,D(1),D(2),D(3)	4	29.5	54.6	47.4	2.6	9.1	4.3	2.6	8.8	5.8	15.4	32.4	19.9	25.
		13	29.5	92.5	50.0	0.0	10.0	6.5	2.2	20.0	8.7	15.0	32.4	18.6	21.

of difficulty encountered in achieving or reasons an attempt has not been made to achieve a group of objectives
 tied on basis of achievement levels.

Desire to Do Level

No.	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objectives to pupil			Inability of teacher		
	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.
1	60.9	60.9	60.9	0.0	0.0	0.0	13.0	13.0	13.0	30.4	30.4	30.4	17.4	17.4	17.4	13.0	13.0	13.0
1	55.1	55.1	55.1	4.1	4.1	4.1	8.2	8.2	8.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
1	43.8	43.8	43.8	4.2	4.2	4.2	6.3	6.3	6.3	16.7	16.7	16.7	12.6	12.6	12.6	12.5	12.5	12.5
1	28.2	28.2	28.2	0.0	0.0	0.0	7.7	7.7	7.7	25.6	25.6	25.6	15.4	15.4	15.4	25.6	25.6	25.6
1	70.8	70.8	70.8	8.3	8.3	8.3	4.2	4.2	4.2	37.5	37.5	37.5	16.7	16.7	16.7	8.3	8.3	8.3
7	12.2	25.0	13.5	0.0	9.8	0.0	0.0	10.8	9.8	13.9	29.3	15.6	7.3	21.9	18.5	36.1	44.7	41.5
12	12.2	70.8	22.8	0.0	9.8	0.0	0.0	13.0	8.1	12.2	37.5	20.2	7.3	21.9	16.1	8.3	44.7	36.4

Habit of Doing Level

ire	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objectives to pupil			Inability of teacher			
	No.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
(3)	1	50.0	50.0	50.0	0.0	0.0	0.0	11.4	11.4	11.4	15.9	15.9	15.9	29.6	29.6	29.6	20.5	20.5	20.5
	2	65.9	92.5	79.2	6.8	10.0	8.4	18.2	20.0	19.1	20.0	27.3	23.7	25.0	30.0	27.5	9.1	25.0	17.1
	1), 0(4)	3	35.6	76.7	47.8	6.7	8.7	7.0	2.2	15.2	2.3	18.6	23.9	20.0	21.0	37.8	30.4	9.3	31.1
2)	1	45.0	45.0	45.2	2.5	2.5	2.5	10.0	10.0	10.0	15.0	15.0	15.0	37.5	37.5	37.5	27.5	27.5	27.5
	2	63.0	71.7	67.4	4.4	6.5	5.5	6.5	8.7	7.6	17.4	17.4	17.4	26.1	28.2	27.2	8.7	13.0	10.9
	D(2).	4	29.5	54.6	47.4	2.6	9.1	4.3	2.6	8.8	5.8	15.4	32.4	19.9	25.6	47.1	28.5	20.6	33.3
	13	29.5	92.5	50.0	0.0	10.0	6.5	2.2	20.0	8.7	15.0	32.4	18.6	21.0	47.1	29.6	8.7	33.3	20.6

and kinds of foods or quality of raw products. Only 26 per cent attributed their difficulty in recognizing quality foods to this cause.

4. Lack of pupil time at school and home was the principal cause of difficulty in developing performance ability in the preparation of food. Insufficient time in the home economics program, inability of teacher, not suited to pupil, inadequacy of physical plant, and lack of food supplies were given as causes in from 22 to 49 per cent of cases. (Table 15)
5. Many of the difficulties experienced in relation to the various manipulative techniques were attributed to lack of pupil time at home and school. Sixty-eight percent reported that the difficulty encountered in developing the ability to work neatly, one-third the ability to work quietly and quickly, and one-half the skill in technique, were due to this cause. (Appendix p.3)
6. Developing performance ability in preparation of food met with many obstacles in those cases where managerial ability is needed. Lack of pupil time at home and school accounts for the difficulties experienced by about 70 per cent of the teachers in relation to developing the ability to plan sequence of work in preparing individual foods or a meal, and about 40 per cent to lack of ability to create desire on part of pupil. Inability of teacher, lack of food products, inadequate physical plant, resulted in difficulty with other managerial jobs such as judging quality of products, and utensils to use. (Appendix p.3)

Table 14. Causes of difficulty encountered in achieving or reasons an attempt has not been made to achieve related to the recognition of adequate nutrition.

Objectives related to	Item on questionnaire	No.	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objectives to pupils	
			Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.
Varieties or species and kinds of food	I-G(1-21), H(1-3)	24	12.2	33.3	26.8	40.9	54.2	47.6	18.4	38.9	27.4	24.0	46.2	38.0	17.1	28.0
Quality of raw products	I-I(1-13), L(1-3)	16	22.9	36.1	28.8	35.5	61.5	51.2	13.6	30.0	18.9	11.9	45.2	34.6	5.4	27.0
Quality of prepared products	I-J(1-9)	10	40.5	58.8	46.6	16.7	42.2	26.2	8.6	22.0	12.5	30.6	43.2	38.8	2.7	18.0
		50	12.2	58.8	29.0	16.7	61.5	46.7	8.6	38.9	21.4	11.9	46.2	37.4	2.7	28.0

See directions for reading table 13.

Table 15. Causes of difficulty encountered in achieving or reasons an attempt has not been made to achieve related to performance in preparing food.

Objectives related to	Item on questionnaire	No.	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objectives to pupils	
			Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.
Manipulative techniques	II-A(1-16), B, D, D	19	32.5	68.2	46.0	0.0	40.8	0.0	0.0	44.4	7.9	7.5	33.3	22.2	12.1	
Follow instructions	II-H(1-3)	3	19.1	25.0	21.4	0.0	0.0	0.0	2.4	14.3	9.4	2.4	6.3	2.4	18.8	
Independence	II-G(1-2), I(1-16)	31	26.1	76.7	41.7	0.0	43.6	10.0	2.9	97.0	18.0	7.0	31.3	23.6	5.4	
	J, K, L, M	53	19.1	76.7	42.4	0.0	43.6	4.9	0.0	97.0	13.3	2.4	33.3	22.2	19.5	

See directions for reading table 13.

of difficulty encountered in achieving or reasons an attempt has not been made to achieve a group of objectives to the recognition of adequate nutrition.

Item on questionnaire	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objective to pupil			Inability of teacher			
	No.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.
Identified		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
I-G(1-21),H(1-3)	24	12.2	33.3	26.8	40.9	54.2	47.6	18.4	38.9	27.4	24.0	46.2	38.0	17.1	28.9	21.0	10.0	38.5	21.4
I-I(1-13),L(1-3)	16	22.9	36.1	28.8	35.5	61.5	51.2	13.6	30.0	18.9	11.9	45.2	34.6	5.4	27.3	13.2	5.4	20.0	10.8
I-J(1-9)	10	40.5	58.8	46.6	16.7	42.2	26.2	8.6	22.0	12.5	30.6	43.2	38.8	2.7	18.0	8.0	2.6	13.5	6.4
	50	12.2	58.8	29.0	16.7	61.5	46.7	8.6	38.9	21.4	11.9	46.2	37.4	2.7	28.9	18.3	2.6	38.5	14.3

reading table 13.

of difficulty encountered in achieving or reasons an attempt has not been made to achieve a group of objectives to performance in preparing food.

Item on questionnaire	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objective to pupil			Inability of teacher			
	No.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.
Identified		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
II-A(1-16),B,C,D	19	32.5	68.2	46.0	0.0	40.8	0.0	0.0	44.4	7.9	7.5	33.3	22.2	12.1	90.9	34.1	4.1	26.7	16.7
II-H(1-3)	3	19.1	25.0	21.4	0.0	0.0	0.0	2.4	14.3	9.4	2.4	6.3	2.4	18.8	19.1	19.1	16.7	31.3	21.4
II-G(1-2),I(1-16) J,K,L,M	31	26.1	76.7	41.7	0.0	43.6	10.0	2.9	97.0	18.0	7.0	31.3	23.6	5.4	52.3	31.4	7.0	41.9	25.0
	53	19.1	76.7	42.4	0.0	43.6	4.9	0.0	97.0	13.3	2.4	33.3	22.2	19.5	90.9	19.5	4.1	41.9	20.0

reading table 13.

7. Many factors have been responsible for the great amount of difficulty encountered with the objectives related to maintaining adequate nutrition. The most outstanding causes were lack of pupil time at school and home, the organization of the home economics program which provides insufficient time for this unit, and time and facilities for home visiting, lack of means to stimulate the desire of pupils and the inability of the teacher.
8. Lack of pupil time at home and school accounted for the difficulties encountered by one-third to one-half of the teachers. About three-fourths reported that failure to develop the habit of assuming responsibility for meal planning at home, as compared with 15 per cent for recognizing evidences of good nutrition were attributed to this cause. (Appendix p.3)
9. The inability of the teacher to create the desire of the pupils played a very significant part in the difficulties encountered in developing ability to recognize signs of good nutrition, the habit of helping members of the family to learn to enjoy foods. It likewise is responsible for difficulties experienced by about one-sixth of the group in developing the ability and habit of planning meals. (Appendix p.3)
10. About one-third of the group experienced difficulties due to their own inability in developing the ability to recognize signs of good nutrition, and the habit of helping family improve their food habits. (Appendix p.3)
11. Of the causes of the difficulties experienced in fostering personal

growth of the pupils, the outstanding one recognized by the teachers is the inability of the teachers (37.5 per cent). Other causes recognized by about one-fourth of the group included lack of pupil time at school and home, inability and lack of interest on part of pupil, inadequate time in the unit, and provision for home visiting.

(Table 17.)

12. The inability of the teacher is recognized by from 30 to 40 per cent in developing ability to recognize evidences of nice human relationships, to understand the cause of success or failure, to develop the habit of practicing or of cooperating with members of the family in those activities through which nice relationships might be developed. Lack of pupil time also accounts for difficulties encountered in developing cooperation with the family group.
13. Lack of ability of pupils and lack of ability of teachers to stimulate their desire again prevents success in achieving nice human relations.
14. That teachers encounter difficulty in developing the ability or desire of pupils to recognize good learning techniques, to see and to solve problems, is recognized by about 40 per cent as due to the inability of the teachers. To a lesser extent this, the most serious of all difficulties, is due to lack of pupil time at school and home.

Table 16. Causes of difficulty encountered in achieving or reasons an attempt has not been made to achieve related to maintenance of adequate nutrition.

Objectives related to	Item on questionnaire	No.	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of obj to
			Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	
	Identified		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Recognize signs of good nutrition	I-H	1	15.6	15.6	15.6	9.4	9.4	9.4	18.8	18.8	18.8	21.9	21.9	21.9	25.0
Ability to plan	II-E, F	2	32.6	47.7	35.2	6.5	11.4	9.0	10.9	15.9	13.4	19.6	29.6	24.6	17.4
Desire to practice	III-A(1)	1	43.8	43.8	43.8	4.2	4.2	4.2	6.3	6.3	6.3	16.7	16.7	16.7	12.6
Habit of practicing	IV-A(1), C(1), (4)	3	35.6	76.7	47.8	6.7	8.7	7.0	2.2	15.2	2.3	18.6	23.9	20.0	21.0
		7	15.6	76.7	43.8	4.2	11.4	7.0	2.2	18.8	10.9	16.7	29.6	20.0	12.6

See directions for reading table 13.

Table 17. Causes of difficulty encountered in achieving or reasons an attempt has not been made to achieve related to the fostering of personal growth.

Objectives related to	Item on questionnaire	No.	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of obj to
			Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	
	Identified		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Human relationship	I-Q, III-B, D, IV-B, D (1-4)	8	6.7	54.6	32.3	0.0	9.1	2.6	0.0	10.0	5.8	15.0	32.4	19.9	18.7
Self education	I-P, II-V(1-5), III-C(1-5)	11	2.6	35.7	20.5	0.0	15.4	2.3	2.8	28.2	9.1	12.8	24.3	18.6	7.3
		19	2.6	54.6	25.0	0.0	15.4	2.3	0.0	28.2	7.9	12.8	32.4	18.6	7.3

See directions for reading table 13.

ity encountered in achieving or reasons an attempt has not been made to achieve a group of objectives
 nance of adequate nutrition.

on naire	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objective to pupil			Inability of teacher			
	No.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.
	§	§	§	§	§	§	§	§	§	§	§	§	§	§	§	§	§	§	§
ied	1	15.6	15.6	15.6	9.4	9.4	9.4	18.8	18.8	18.8	21.9	21.9	21.9	25.0	25.0	25.0	31.3	31.3	31.3
	2	32.6	47.7	35.2	6.5	11.4	9.0	10.9	15.9	13.4	19.6	29.6	24.6	17.4	25.0	21.2	20.5	21.7	21.1
1)	1	43.8	43.8	43.8	4.2	4.2	4.2	6.3	6.3	6.3	16.7	16.7	16.7	12.6	12.6	12.6	12.5	12.5	12.5
0,c(1),(4)	3	35.6	76.7	47.8	6.7	8.7	7.0	2.2	15.2	2.3	18.6	23.9	20.0	21.0	37.8	30.4	9.3	31.1	15.2
	7	15.6	76.7	43.8	4.2	11.4	7.0	2.2	18.8	10.9	16.7	29.6	20.0	12.6	37.8	25.0	9.3	31.3	20.5

Table 13.

ity encountered in achieving or reasons an attempt has not been made to achieve a group of objectives
 ostering of personal growth.

a on onnaire	Lack of time at home or school			Lack of food supplies			Inadequate physical plant			Insufficient time in H.E. program			Suitability of objective to pupil			Inability of teacher			
	No.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.	Min.	Max.	Md.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
fied																			
B, D, IV-B, D																			
(1-4)	8	6.7	54.6	32.3	0.0	9.1	2.6	0.0	10.0	5.8	15.0	32.4	19.9	18.7	47.1	27.5	20.6	41.5	32.9
(1-5).																			
5)	11	2.6	35.7	20.5	0.0	15.4	2.3	2.8	28.2	9.1	12.8	24.3	18.6	7.3	53.8	18.2	2.6	60.7	38.9
	19	2.6	54.6	25.0	0.0	15.4	2.3	0.0	28.2	7.9	12.8	32.4	18.6	7.3	53.8	20.5	2.6	60.7	37.5

Table 13.

Chapter IV

SUGGESTIONS FOR THE USE OF THE SCHOOL LUNCH

Because of the recognition of the importance of certain objectives and the difficulty experienced by the teachers who contributed to this study, the writer has limited her further study.

An analysis of the purpose, the organization, and administration of the Work Projects Administration lunch room suggests that it should offer opportunities for pupils to have such experiences as will help them achieve the objectives which seem to be the most challenging to the teachers. These are:

1. Development of desire of pupils to do the best they can. This was recognized by the teachers as being more important than developing either the ability to do, the habit of doing or the ability to recognize good standards as related to the various objectives.
2. Development of the ability to assume responsibility for their own education, that is, to recognize evidences of good learning techniques, see the problems, select reliable source of information, pick out functioning information, apply it, arrive at a solution, and evaluate results.
3. Development of the ability to recognize signs of good nutrition, the desire to and habit of practicing good nutrition.

The following are situations in the Work Projects Administration

lunch room which makes it appear to offer excellent facilities for the accomplishment of the above objectives. They are the following:

1. Work Projects Administration lunch rooms are set up only in schools where seventy-five percent of the children are needy or malnourished.
2. They serve all ages of children.
3. Food supplies are obtained from the Surplus Commodity Administration, from local organizations, Work Projects Administration gardens and canneries, or local stores.
4. The home economics teacher and members of the health department may be members of the advisory committee.
5. Teachers who eat in the lunchroom must serve as supervisors. They also eat the food served the pupils.
6. Schools in which there are Work Projects Administration lunchrooms can not serve weiners, soft drinks, and candy.
7. The space and equipment used must meet definite requirements as set up by this agency.
8. The school lunch must meet the state standards for sanitation.
9. Workers must have food handler's cards.

The following are activities in which it seems possible that home economics pupils might participate in order to achieve these objectives with which the teachers are having difficulty:

1. Observe the results achieved by improving the diet of malnourished children.
2. Actually plan nutritious dishes or meals on very low cost levels.

Care must be taken in selecting them and in some cases it may even be necessary to fortify them.

3. Plan meals using a limited variety of food stuffs in such a way as to prevent them from becoming monotonous.
4. Observe results achieved with various methods of getting children to accept foods to which they are prejudiced.
5. Observe the effect of a teaching program designed to help children to eat correctly.
6. Observe how pupils respond to behavior of their group as to table manners, and to food choices.
7. Prepare for newspapers or mimeographed sheets, to be distributed to homes of student, five day menus for breakfast and supper, to supplement the school lunch. This may be done on several cost levels.
8. Observe the behavior of their own brothers and sisters in the school lunchroom with the idea of helping the home meet their special needs.
9. Compare the different varieties and qualities of foods.
10. Compare quality of cooked foods prepared from various qualities and grades of raw foods.
11. Compare the length of the storage time for various foods and also the effect of the method of storage on the food.
12. Use equipment which is suited to that community.
13. Observe changes in attitude of children toward the nutritious foods.
14. Observe eating habits of children, their acceptance and re-

jection of food and the causes of each.

15. Observe how children react to situations present in the school lunchroom which will enable them to understand better their brothers and sisters.
16. Plan animal feeding experiments and direct grade school children in carrying them out.
17. Assume responsibility for checking frequently to see that state standards of sanitation have been met in the lunchroom.
18. Check themselves at regular intervals as to their own health standards and practices.
19. Observe practices of others handling food.
20. Assume responsibility for making work schedules and working on schedule.

The writer believes that the following conditions must exist for the plan to be successful:

1. There must be a close cooperation between the home economics teachers and the state and district supervisors of the Work Projects Administration school lunchrooms.
2. The teacher must so plan her program that students who participate in the school lunch will have an opportunity to catch up on work done during the time they are absent from it.
3. The teacher must be willing for her schedule to be very flexible.

The home economics teacher must be capable of causing these conditions to exist to obtain full benefit of the school lunchroom.

Chapter V

Summary and Recommendations

How can participating in activities connected with the Works Projects Administration lunch rooms help pupils to achieve ends that are difficult to achieve in the usual home economics class room? To find at least a tentative answer to that question was the purpose of this study. What are the important objectives with which teachers are having difficulties? What are the causes of these difficulties? To secure answers to these questions a questionnaire was sent to sixty-one North Carolina home economics teachers.

When classified as to the areas covered, the objectives relating to maintenance of adequate nutrition and satisfactory surroundings were of major importance. Next in order comes those related to use of time and energy, use of money, personal growth, and quality of foods.

When these groups were again analyzed, those objectives related to the development of the ability to contribute to one's own education were of major importance.

Difficulties were encountered on all four levels, in each area into which the objectives were classified. The most outstanding difficulties were experienced in developing the desire to achieve. The areas in which difficulties were greatest were in maintaining adequate nutrition and self-education.

Many were the causes of these difficulties. Lack of pupil time, lack of time for this unit, lack of time and facilities for home visiting, inability of the teacher, lack of food supplies, and lack of means of de-

veloping the interest of students all appeared as causes of difficulty.

A list of possible student activities in the Work Projects Administration lunch room situation were found to help teachers to overcome these difficulties.

The writer recommends the following:

1. That all colleges that train home economics teachers should provide for seniors in training an opportunity to participate in the development of a school and community wide nutrition program. This program should be designed to equip them to help students recognize signs of good nutrition, plan meals nutritionally adequate, to have desire and habit of practicing good nutrition.
2. That the colleges responsible for training teachers make such experiments as will enable them to find means of developing the ability of pupils to assume responsibility for their own education.
 - (1) to recognize good learning techniques
 - (2) to see problems
 - (3) to select reliable information
 - (4) to pick out functioning information
 - (5) to apply information and arrive at solution
 - (6) to evaluate results
3. That in the revision of the State Course of Study an effort be made to define more carefully and limit objectives for high school home economics classes.
4. That a group of eight to ten of the best teachers be selected and guided in the development of a program which will enable them to

make real progress during 1941 and 1942 in

- (a) defining and limiting the objectives that they will attempt to achieve.
- (b) developing a school and community nutrition program in which they will make use of the suggestions for use of the school lunch, and maximum use of all community agencies that are interested in nutrition.
- (c) Finding means to develop interest and ability of pupils to carry responsibility for own education.

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APPENDIX

Woman's College, U. N. C.
Greensboro, North Carolina
March 13, 1941

Dear Home Economics Teacher:

The problem on which I am working for my thesis at Woman's College is "A Suggested Plan for Achieving Certain Specific Objectives through the Secondary Program in Foods and Nutrition." On the recommendation of my adviser, Miss Mabel V. Campbell, I am asking a selected group of teachers to assist me. You have been recommended by Miss Virginia Ward of the State Department of Education.

I have chosen this problem for five reasons: First, as a teacher, I never did succeed in providing such learning situation in the usual school and home set-up as would help my students achieve some of the objectives which I believed to be very important for them. Second, I never was quite sure that some of these objectives were really important to my high school students. Third, I believe that the school lunch program might provide experience which if properly integrated with class room instruction will contribute to the growth of the pupil. Fourth, the increase in number of school lunches in North Carolina will afford an excellent opportunity for experimentation. Fifth, I believe that through closer cooperation between the home economics teacher and the manager of the school lunch that the lunch can make a more effective contribution to the entire community.

I plan to base my study on the information secured through the questionnaire of which two copies are enclosed. You will note that provision has been made for you to indicate through proper checking:

1. What you consider to be the relative importance of the objectives listed for the high school.
2. The degree of difficulty you have encountered in having your students achieve the objective.
3. The reason for the difficulty or why you have not tried to achieve the objective.

This list of possible objectives which is in general based on "the State Suggested Course of Study" includes objectives which I believe range from very important (hence "should be stressed") to those of little value (hence "should not be attempted") to the high school students with whom I have worked.

I am enclosing two copies of the questionnaire, one of which you may keep and the other I am asking you to fill out and return to me. At the completion of the study, some means will be provided to make the results available to the home economics teachers of the State.

Thanking you for your cooperation, time, and trouble, I am

Sincerely yours,

Catherine Turner

Catherine Turner

CT/m
Enc. 2

(13) peaches	30 59	17 40 8 35	21 48 33	12 41 12	21
(14) cantalopes	15 53	12 29 10 49	22 52 30	11 41 13	26
(15) okra	11 55	12 32 6 50	23 52 39	9 44 12	28
(16) sweet potato	48 52	26 35 9 50	24 46 34	42 10	22
(17) fish	51 41	13 51 11 26	26 53 34	15 38 13	30
(18) cherries	13 41	14 29 8 50	27 52 50	14 36 14	30
(19) cabbage	30 55	27 31 10 33	23 46 51	10 46 10	39
(20) plums	7 63	8 31 10 51	22 50 38	11 39 13	24
(21) dried prunes	26 58	21 35 10 33	18 41 34	11 37 11	21
H. Unusual foods on market					
(1) vegetables	31 53	13 45 28 16	29 47 18	14 35	14
(2) fruits	27 56	15 42 27 16	30 54 20	16 24	10
(3) nuts	12 66	15 43 21 21	33 54 21	21 25	10
I. Differences in quality of raw product					
(1) shell fish	36 35	7 56 17 22	25 62 25	14 59	15
(2) fish	62 31	18 58 14 10	23 56 25	8 33	8
(3) dried fish	29 41	11 46 15 28	26 52 20	8 34	12
(4) fresh vegetables	95 5	44 50 4 2	32 49 19	33	
(5) fresh fruits	97 3	44 49 6	27 49 19	8 35	10
(6) eggs	85 12	49 45 4	29 36 11	45	10
(7) staples	78 18	32 60 4	36 36 11	8 36	17
(8) canned fruit	80 19	23 46 6	30 36 14	41	9
(9) canned vegetables	78 21	21 69 6 16	31 35 14	12 33	14
(10) canned fish	43 43	16 55 12 16	33 51 14	14 28	9
(11) canned meat	48 46	18 56 12	29 51 16	9 42	9
(12) butter	76 19	37 53 14	27 42 15	21 36	12
(13) cheese	66 29	29 56 9	27 52 15	12 46	9
J. Differences in qualities of prepared food products					
(1) meat	79 18	24 61 6 9	42 42 13	9 42	13
(2) soup	74 19	31 57 4 8	48 25 13	31	13
(3) vegetables	83 12	28 55 8 9	46 28 13	39 15	
(4) breads					
a. quick	76 18	27 27 4 12	41 27 16	43	14
b. yeast	72 22	23 61 6 10	49 20 22	39	
(5) egg dishes	73 15	31 49 8 12	46 26 9	11 48	
(6) cakes and cookies	72 23	31 64 4	53 20 13	38	
(7) pastries	70 22	36 54 6	59 21 12	40	
(8) salads	71 17	35 59 0	47 18 11		
(9) beverages	29 14	37 53 4	44 17 11	31	11
K. An attractive table arrangement					
(1) linens					
a. size, shape	81 19	26 67 4	31 13 67	16 36	18
b. quality or texture	76 19	18 57 23	26 11 14	15 34	11

(2) selection and arrangement																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		</
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(14) handling hot foods and utensils	71 29	45 53 2	50	10	20	37	20
(15) handling liquids (without spilling)	75 23	40 39 0	40		30 15	61	15
(16) handling dry ingredients	81 18	44 52 2	48		32 16	45	23
B. Work quietly	90 10	15 76 9	33	35	23		20
C. Work neatly and orderly	100 0	9 81 10	68	41	21 16	14	20
D. Work quickly	93 5	6 84 10	38	14	20 13	16	20
E. Plan well-balanced meals	100 0	15 69 17	33	11	15 19		22
F. Plan meals on definite cost levels	84 12	16 69 20	48	11	16	14 30	11
G. Plan sequence of work in food preparation in relation to time and energy							
(1) in making individual foods	78 22	19 72 8	71	32	42 24	10	22
(2) in preparing whole meal	98 2	20 61 16	77	35	37 26		21 21
H. Interpret instruction							
(1) written	95 3	15 69 9	19		14 29		17
(2) oral	95 5	21 64 14	21	14	14 19		21
(3) pictorial	92 7	31 39 12 19	25	9	19 16		31
I. Analyze recipes as to:							
(1) ingredients	90 7	43 51 6	42	26	23 21		42
(2) proportions	95 3	32 54 15	43	27	19		32
(3) substitution of ingredients	81 18	16 64 17	38	8	19 16	8	16
(4) directions for preparation	98 0	26 65 9	47	8	17 14	5	28
(5) number of servings	85 16	30 64 6	51	11	17 17		20
(6) adjustment of recipe to number served	87 13	21 66 12	61	8	13 21	8	24
(7) cost of dish	82 16	28 58 17	33	13	13 24		21
J. Judge Causes of Failure in preparation of food	98 2	15 64 19	56	24	12 20		32

K. Judge what products and what method of cookery can be used when the serving may be delayed.									
(1) hot meat dishes	69 22	41 44 6 9	43	20		8 26			31
(2) hot vegetable dishes	72 21	40 47 6	49	20	9	11 29			31
(3) hot soups	66 25	52 38 2 8	41	13	9	31			28
(4) hot beverages	65 26	44 42 6 8	41	13	9	31			25
(5) hot breads	70 23	43 39 10 8	42	11	8	8 28			25
(6) hot cakes	63 24	36 38 9 17	38	15		21			32
(7) hot egg dishes	72 20	37 47 8 8	41	9	11	8 24			19
(8) cold salads	70 21	52 51 2 10	42	12	21	9 27			27
(9) cold beverages	69 22	55 33 2 10	34	9	19	28			28
(10) perishable salads	70 20	32 55 2 11	34	8	14	20			28
(11) cakes and cookies	62 25	48 40 2 10	20	10	13	23			30
(12) pastries	62 29	46 38 2 15	54	11	26	18			29
(13) frozen dessert	67 24	48 32 6	37	11	14	20			26
L. Judge when to use various grades, forms, sizes, or varieties of:									
(1) fresh fruits	66 29	40 48 6	36	44	18	15 26	13		15
(2) fresh vegetables	67 28	39 50 6	37	42	21	13 26	13		18
(3) dairy products	71 26	40 44 10	41	38	21	15 24	12		18
(4) dried fruits	59 32	43 41 6 10	26	30	11	22			9
(5) canned fruits and vegetables	68 28	38 46 10	42	32	18	11 26	16		16
(6) staples	77 19	38 48 10	62	30	27	18 30	16		21
M. Judge best utensil to use for given purpose									
(1) size	72 25	22 49 6	36		10	16 10			12
(2) shape	66 29	22 73 4	39		77	13			
(3) material of utensil	64 34	24 67 6	31		48	12 10			10
N. Judge best method of storing under given conditions									
(1) perishables	83 16	43 45 6	41	13	60	31			13
(2) staples	78 21	45 49 6	42	10	65	23			2
(3) seasonal supplies, such as canned, pre-served, smoked, and dried food	67 31	41 47 8	35	12	62	30			15
(4) cleaning supplies	74 24	46 50 4	44	11		11 35			11

[illegible]

(3) food buying	93 7	10 64 23	71	8		10 38		8
(4) maintenance of an orderly, convenient, attractive and sanitary sur- rounding at home and school	100 0	15 69 17	61		13	13 30		15
(5) Use of time and energy	97 4	10 69 21	28			26		26
B. Improve human relationship	87 13	18 61 22	12		10	15 29		42
C. Assume responsi- bility for own growth (self edu- cation)								
(1) see problem	88 11	10 53 31	12	10	10	15		37
(2) select reli- able infor- mation	87 9	6 60 26 8	21		10	16		44
(3) pick out functioning information	88 7	6 57 29	14		11	24 16		43
(4) apply infor- mation and arrive at solutions	88 7	8 56 26 10	18		8	24 13		45
(5) evaluate results	88 7	8 53 29 10	25			15 8		36
D. Improve human relationships	94 4	5 74 19	16			16 16		37
IV. At home to have habit of:								
A. Actually prac- ticing what has been taught con- cerning:								
(1) nutrition	97 3	21 55 18	48	8	15	30 24		15
(2) food prep- aration and service	98 2	23 61 13	66	7	18	25 27		9
(3) food buying	72 7	12 61 24	63			22 14		13
B. Analyzing causes of success and failures in human relationship	81 11	11 57 16 16	30		9	27 32	21	21
C. Assuming responsi- bility at home for:								
(1) planning meals	81 19	19 57 19 15	77			16 19		9
(2) buying foods	79 19	13 56 19 23	72		9	17 17	9	9

(3) preparation and serving of food	90 11	25 64 9	93	10	21	38 20	25
(4) helping members of family to learn to enjoy foods	84 16	17 59 22	36			36 50	31
(5) maintenance of orderly, convenient, attractive, and sanitary surroundings	97 4	13 75 11	20		11	30 16	21
D. Cooperating with other members of family group in:							
(1) food production	75 23	17 63 12	46			24 22	32
(2) food planning, preparation, and serving	97 4	32 62 4	55	9		24 18	27
(3) food buying	90 3	19 63 13	49			21 16	33
(4) eliminating waste of time and energy	86 14	10 67 22	45		10	23 16	28

COMMENTS: